

Table S1: Virus proteins that significantly interact with the 163 genes selected by TD based unsupervised FE and enriched by “Virus-Host PPI P-HIPSTer 2020” in Enrichr

Term	Overlap	P-value	Adjusted P-value
SARS coronavirus excised_polyprotein 1..4369 (gene: orf1ab)	12/194	6.67×10^{-8}	2.38×10^{-6}
SARS coronavirus P2 full_polyprotein 1..4382	12/198	8.35×10^{-8}	2.76×10^{-6}
SARS coronavirus hypothetical protein sars9b	4/17	9.31×10^{-6}	7.57×10^{-5}
SARS coronavirus P2 hypothetical protein sars9b	4/17	9.31×10^{-6}	7.562×10^{-5}
SARS coronavirus Tor2 Orf13	4/17	9.31×10^{-6}	7.55×10^{-5}
SARS coronavirus nsp7-pp1a/pp1ab (gene: orf1ab)	5/36	1.038×10^{-5}	8.18×10^{-5}
SARS coronavirus 3C-like proteinase (gene: orf1ab)	4/19	1.49×10^{-5}	1.10×10^{-4}
SARS coronavirus nucleocapsid protein (gene: N)	4/29	8.61×10^{-5}	4.23×10^{-4}
SARS coronavirus P2 nucleocapsid protein	4/29	8.61×10^{-5}	4.23×10^{-4}
SARS coronavirus Tor2 nucleocapsid protein	4/29	8.61×10^{-5}	4.22×10^{-4}
SARS coronavirus nsp4-pp1a/pp1ab (gene: orf1ab)	3/16	2.75×10^{-4}	9.89×10^{-4}
SARS coronavirus formerly known as growth-factor-like protein (gene: orf1ab)	3/17	3.32×10^{-4}	1.14×10^{-3}
SARS coronavirus nsp8-pp1a/pp1ab (gene: orf1ab)	4/45	4.88×10^{-4}	1.50×10^{-3}
SARS coronavirus leader protein (gene: orf1ab)	3/20	5.47×10^{-4}	1.61×10^{-3}
SARS coronavirus RNA-dependent RNA polymerase (gene: orf1ab)	2/9	2.28×10^{-3}	5.26×10^{-3}
SARS coronavirus P2 spike glycoprotein precursor	4/71	2.70×10^{-3}	6.08×10^{-3}
SARS coronavirus nsp3-pp1a/pp1ab (gene: orf1ab)	5/118	2.82×10^{-3}	6.34×10^{-3}
SARS coronavirus E2 glycoprotein precursor (gene: S)	4/72	2.84×10^{-3}	6.38×10^{-3}
SARS coronavirus Tor2 spike glycoprotein	4/72	2.84×10^{-3}	6.38×10^{-3}
SARS coronavirus 2-O-ribose methyltransferase (2-o-MT) (gene: orf1ab)	2/11	3.45×10^{-3}	7.26×10^{-3}
SARS coronavirus hypothetical protein sars7a	3/38	3.63×10^{-3}	7.59×10^{-3}
SARS coronavirus P2 hypothetical protein sars7a	3/38	3.63×10^{-3}	7.58×10^{-3}
SARS coronavirus Tor2 Orf8	3/38	3.63×10^{-3}	7.58×10^{-3}
SARS coronavirus nsp9-pp1a/pp1ab (gene: orf1ab)	2/13	4.85×10^{-3}	9.45×10^{-3}
SARS coronavirus nsp13-pp1ab (ZD, NTPase/HEL; RNA (gene: orf1ab)	2/14	5.63×10^{-3}	1.06×10^{-2}
SARS coronavirus Tor2 replicase 1AB	4/108	1.18×10^{-2}	1.94×10^{-2}
SARS coronavirus P2 full_polyprotein 1..7073	4/109	1.22×10^{-2}	2.00×10^{-2}

Table S2: Genes whose expression is altered by SARS-CoV-2-related viruses that significantly interact with the 163 genes selected by TD based unsupervised FE and enriched by “Virus Perturbations from GEO up” in Enrichr

Term	Overlap	P-value	Adjusted P-value
SARS-BatSRBD 48Hour GSE47960	11/300	3.66×10^{-5}	1.48×10^{-3}
SARS-CoV 12Hour GSE17400	11/300	3.66×10^{-5}	1.31×10^{-3}
SARS-CoV 48Hour GSE47961	11/300	3.66×10^{-5}	1.18×10^{-3}
icSARS CoV 54Hour GSE37827	11/300	3.66×10^{-5}	1.08×10^{-3}
SARS-CoV MA15 Day2 GSE49263	10/300	1.82×10^{-4}	3.45×10^{-3}
SARS-CoV 60Hour GSE47960	10/300	1.82×10^{-4}	3.26×10^{-3}
SARS-CoV 96Hour GSE47961	10/300	1.82×10^{-4}	3.09×10^{-3}
SARS-ddORF6 24Hour GSE47961	10/300	1.82×10^{-4}	2.93×10^{-3}
SARS-BatSRBD 36Hour GSE47960	9/300	8.14×10^{-4}	1.05×10^{-2}
SARS-CoV MA15 Day4-C57BL-6 GSE40824	9/300	8.14×10^{-4}	1.01×10^{-2}
SARS-dORF6 72Hour GSE47960	9/300	8.14×10^{-4}	9.73×10^{-3}
SARS-ddORF6 72Hour GSE47961	9/300	8.14×10^{-4}	9.39×10^{-3}
SARS-BatSRBD 84Hour GSE47961	8/300	3.27×10^{-3}	2.46×10^{-2}
SARS-CoV MA15 Day2 GSE49262	8/300	3.27×10^{-3}	2.40×10^{-2}
SARS-CoV MA15 Day4-PFU-10 ⁵ GSE33266	8/300	3.27×10^{-3}	2.35×10^{-2}
SARS-dORF6 84Hour GSE47962	8/300	3.27×10^{-3}	2.30×10^{-2}
cSARS Bat SRBD 24Hour GSE37827	8/300	3.27×10^{-3}	2.25×10^{-2}
cSARS Bat SRBD 60Hour GSE37827	8/300	3.27×10^{-3}	2.20×10^{-2}
icSARS CoV 0Hour GSE37827	8/300	3.27×10^{-3}	2.16×10^{-2}
icSARS CoV 48Hour GSE37827	8/300	3.27×10^{-3}	2.11×10^{-2}

Table S3: Genes whose expression was altered by SARS-CoV-2-related viruses that significantly interact with the 163 genes selected by TD-based unsupervised FE and enriched by “Virus Perturbations from GEO down” in Enrichr

Term	Overlap	P-value	Adjusted P-value
SARS-CoV 0Hour GSE47961	14/300	1.76×10^{-7}	1.42×10^{-5}
SARS-ddORF6 0Hour GSE47961	10/300	1.82×10^{-4}	4.51×10^{-3}
SARS-BatSRBD 96Hour GSE47960	9/300	8.14×10^{-4}	1.38×10^{-2}
SARS-CoV 24Hour GSE17400	9/300	8.14×10^{-4}	1.31×10^{-2}
cSARS Bat SRBD 60Hour GSE37827	9/300	8.14×10^{-4}	1.25×10^{-2}
icSARS CoV 48Hour GSE37827	9/300	8.14×10^{-4}	1.19×10^{-2}
SARS-CoV MA15 Day4-PFU-10 ² GSE33266	8/300	3.27×10^{-3}	3.11×10^{-2}

Table S4: C646 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up/down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP008 HEPG2 24H-C646-10	21/104	1.04×10^{-23}	1.72×10^{-19}
LJP008 PC3 24H-C646-10	11/141	2.22×10^{-8}	9.95×10^{-7}
LJP008 HCC515 24H-C646-10	8/63	4.34×10^{-8}	1.75×10^{-6}
LJP008 A549 24H-C646-10	6/51	3.55×10^{-6}	7.05×10^{-5}
LJP008 MCF7 24H-C646-10	3/45	5.87×10^{-3}	3.24×10^{-2}
LINCS L1000 Chem Pert down			
LJP008 HA1E 24H-C646-10	7/96	1.36×10^{-5}	2.11×10^{-4}
LJP008 PC3 24H-C646-10	4/59	1.37×10^{-3}	1.01×10^{-2}
LJP008 A375 24H-C646-10	4/80	4.16×10^{-3}	2.53×10^{-2}
LJP008 HEPG2 24H-C646-10	4/81	4.35×10^{-3}	2.62×10^{-2}

Table S5: Chelerythrine chlorid significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up/down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP009 MCF7 24H-chelerythrine chloride-10	2.01×10^{-23}	2.22×10^{-19}	
LJP009 HEPG2 24H-chelerythrine chloride-3.33	16/50	6.92×10^{-22}	4.58×10^{-18}
LJP009 PC3 24H-chelerythrine chloride-10	14/149	2.04×10^{-11}	3.11×10^{-9}
LJP009 A375 24H-chelerythrine chloride-1.11	9/55	5.86×10^{-10}	4.84×10^{-8}
LJP009 A375 24H-chelerythrine chloride-3.33	8/57	1.93×10^{-8}	8.87×10^{-7}
LJP009 HT29 24H-chelerythrine chloride-10	9/94	7.48×10^{-8}	2.82×10^{-6}
LJP009 HCC515 24H-chelerythrine chloride-10	8/71	1.13×10^{-7}	4.00×10^{-6}
LJP009 HA1E 24H-chelerythrine chloride-3.33	5/33	6.67×10^{-6}	1.20×10^{-4}
LJP009 HCC515 24H-chelerythrine chloride-0.04	3/28	1.50×10^{-3}	1.08×10^{-2}
LJP009 PC3 24H-chelerythrine chloride-1.11	3/42	4.83×10^{-3}	2.80×10^{-2}
LINCS L1000 Chem Pert down			
LJP009 HEPG2 24H-chelerythrine chloride-10	14/137	6.46×10^{-12}	1.15×10^{-9}
LJP009 HCC515 24H-chelerythrine chloride-10	8/51	7.74×10^{-9}	3.90×10^{-7}
LJP009 A375 24H-chelerythrine chloride-1.11	5/45	3.17×10^{-5}	4.35×10^{-4}
LJP009 HEPG2 24H-chelerythrine chloride-3.33	3/26	1.20×10^{-3}	9.11×10^{-3}
LJP009 A375 24H-chelerythrine chloride-3.33	3/48	7.03×10^{-3}	3.83×10^{-2}

Table S6: Canertinib significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 HEPG2 24H-canertinib-10	19/96	2.29×10^{-21}	1.27×10^{-17}
LJP006 LNCAP 24H-canertinib-10	14/157	4.14×10^{-11}	5.70×10^{-9}
LJP006 HME1 24H-canertinib-0.12	12/113	1.39×10^{-10}	1.47×10^{-8}
LJP006 HCC515 24H-canertinib-10	11/91	2.02×10^{-10}	1.99×10^{-8}
LJP006 MDAMB231 24H-canertinib-10	11/97	4.08×10^{-10}	3.56×10^{-8}
LJP006 HME1 24H-canertinib-3.33	9/80	1.80×10^{-8}	8.37×10^{-7}
LJP006 MDAMB231 24H-canertinib-3.33	7/39	2.59×10^{-8}	1.14×10^{-6}
LJP006 HME1 24H-canertinib-0.37	10/114	3.22×10^{-8}	1.36×10^{-6}
LJP006 LNCAP 3H-canertinib-10	7/41	3.74×10^{-8}	1.56×10^{-6}
LJP006 HCC515 24H-canertinib-3.33	9/91	5.63×10^{-8}	2.21×10^{-6}
LJP006 HCC515 24H-canertinib-1.11	8/77	2.14×10^{-7}	6.75×10^{-6}
LJP006 A375 24H-canertinib-1.11	7/53	2.36×10^{-7}	7.38×10^{-6}
LJP006 MCF10A 24H-canertinib-10	10/153	5.17×10^{-7}	1.42×10^{-5}
LJP006 BT20 24H-canertinib-10	9/123	7.57×10^{-7}	1.97×10^{-5}
LJP006 MCF10A 24H-canertinib-0.04	10/163	9.26×10^{-7}	2.33×10^{-5}
LJP006 A375 24H-canertinib-3.33	6/53	4.47×10^{-6}	8.53×10^{-5}
LJP006 HME1 3H-canertinib-1.11	6/56	6.19×10^{-6}	1.13×10^{-4}
LJP006 BT20 24H-canertinib-1.11	7/86	6.57×10^{-6}	1.18×10^{-4}
LJP006 MCF10A 24H-canertinib-0.37	8/128	1.02×10^{-5}	1.70×10^{-4}
LJP006 HME1 3H-canertinib-3.33	6/64	1.36×10^{-5}	2.14×10^{-4}
LJP006 HA1E 24H-canertinib-3.33	5/41	2.00×10^{-5}	2.95×10^{-4}
LJP006 MCF10A 24H-canertinib-3.33	8/146	2.66×10^{-5}	3.79×10^{-4}
LJP006 MCF10A 24H-canertinib-0.12	8/156	4.28×10^{-5}	5.68×10^{-4}
LJP006 HME1 3H-canertinib-0.12	4/26	5.53×10^{-5}	7.03×10^{-4}
LJP006 MDAMB231 3H-canertinib-10	5/51	5.87×10^{-5}	7.36×10^{-4}
LJP006 HCC515 24H-canertinib-0.37	6/84	6.43×10^{-5}	7.95×10^{-4}
LJP006 MCF10A 24H-canertinib-1.11	7/127	8.27×10^{-5}	9.81×10^{-4}
LJP006 HME1 24H-canertinib-1.11	7/128	8.69×10^{-5}	1.02×10^{-3}
LJP006 HME1 3H-canertinib-0.37	5/59	1.19×10^{-4}	1.32×10^{-3}
LJP006 HME1 24H-canertinib-0.04	6/97	1.43×10^{-4}	1.55×10^{-3}
LJP006 PC3 24H-canertinib-10	4/35	1.83×10^{-4}	1.89×10^{-3}
LJP006 MCF7 3H-canertinib-10	4/37	2.28×10^{-4}	2.27×10^{-3}
LJP006 BT20 3H-canertinib-10	4/41	3.40×10^{-4}	3.19×10^{-3}
LJP006 MCF7 24H-canertinib-10	5/75	3.68×10^{-4}	3.41×10^{-3}
LJP006 HCC515 24H-canertinib-0.04	5/76	3.92×10^{-4}	3.59×10^{-3}
LJP006 HEPG2 24H-canertinib-0.04	4/49	6.77×10^{-4}	5.68×10^{-3}
LJP006 HCC515 24H-canertinib-0.12	4/53	9.12×10^{-4}	7.25×10^{-3}
LJP006 SKBR3 24H-canertinib-3.33	5/94	1.04×10^{-3}	8.06×10^{-3}
LJP006 HA1E 24H-canertinib-10	6/152	1.56×10^{-3}	1.12×10^{-2}
LJP006 SKBR3 24H-canertinib-10	5/110	2.08×10^{-3}	1.42×10^{-2}
LJP006 MCF10A 3H-canertinib-3.33	4/70	2.57×10^{-3}	1.70×10^{-2}
LJP006 BT20 24H-canertinib-0.12	4/71	2.70×10^{-3}	1.77×10^{-2}
LJP006 SKBR3 24H-canertinib-0.37	4/78	3.80×10^{-3}	2.31×10^{-2}
LJP006 HS578T 24H-canertinib-10	5/156	9.11×10^{-3}	4.58×10^{-2}
LJP006 BT20 24H-canertinib-3.33	4/102	9.74×10^{-3}	4.81×10^{-2}

Table S7: Canertinib significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 HME1 24H-canertinib-10	13/89	3.55×10^{-13}	1.12×10^{-10}
LJP006 HME1 3H-canertinib-10	15/139	4.94×10^{-13}	1.46×10^{-10}
LJP006 BT20 24H-canertinib-10	14/128	2.53×10^{-12}	5.44×10^{-10}
LJP006 HS578T 24H-canertinib-10	12/92	1.18×10^{-11}	1.79×10^{-9}
LJP006 BT20 24H-canertinib-3.33	11/81	5.56×10^{-11}	6.53×10^{-9}
LJP006 HA1E 24H-canertinib-10	11/93	2.57×10^{-10}	2.29×10^{-8}
LJP006 SKBR3 24H-canertinib-3.33	10/83	1.43×10^{-9}	9.39×10^{-8}
LJP006 SKBR3 24H-canertinib-0.37	9/65	2.75×10^{-9}	1.62×10^{-7}
LJP006 MCF10A 3H-canertinib-1.11	10/98	7.41×10^{-9}	3.75×10^{-7}
LJP006 HME1 3H-canertinib-1.11	9/82	2.24×10^{-8}	9.31×10^{-7}
LJP006 BT20 24H-canertinib-0.37	8/63	4.34×10^{-8}	1.66×10^{-6}
LJP006 HS578T 3H-canertinib-10	7/54	2.69×10^{-7}	7.75×10^{-6}
LJP006 MCF10A 3H-canertinib-0.37	8/85	4.63×10^{-7}	1.20×10^{-5}
LJP006 MCF10A 24H-canertinib-3.33	11/193	5.44×10^{-7}	1.38×10^{-5}
LJP006 HME1 3H-canertinib-3.33	8/89	6.61×10^{-7}	1.62×10^{-5}
LJP006 BT20 24H-canertinib-0.04	6/46	1.91×10^{-6}	3.98×10^{-5}
LJP006 HS578T 3H-canertinib-0.04	6/49	2.80×10^{-6}	5.46×10^{-5}
LJP006 HCC515 24H-canertinib-10	7/79	3.72×10^{-6}	6.95×10^{-5}
LJP006 BT20 24H-canertinib-1.11	6/52	3.99×10^{-6}	7.42×10^{-5}
LJP006 SKBR3 24H-canertinib-1.11	7/80	4.05×10^{-6}	7.48×10^{-5}
LJP006 SKBR3 24H-canertinib-10	7/85	6.08×10^{-6}	1.06×10^{-4}
LJP006 MCF10A 24H-canertinib-0.12	9/170	1.09×10^{-5}	1.75×10^{-4}
LJP006 MCF10A 3H-canertinib-3.33	7/94	1.19×10^{-5}	1.87×10^{-4}
LJP006 SKBR3 24H-canertinib-0.12	7/94	1.19×10^{-5}	1.87×10^{-4}
LJP006 A375 24H-canertinib-10	7/100	1.78×10^{-5}	2.62×10^{-4}
LJP006 MCF10A 3H-canertinib-0.12	7/100	1.78×10^{-5}	2.62×10^{-4}
LJP006 HA1E 24H-canertinib-3.33	6/71	2.47×10^{-5}	3.51×10^{-4}
LJP006 HCC515 24H-canertinib-3.33	6/72	2.68×10^{-5}	3.77×10^{-4}
LJP006 MCF10A 3H-canertinib-10	5/46	3.54×10^{-5}	4.75×10^{-4}
LJP006 MCF7 3H-canertinib-10	4/28	7.47×10^{-5}	8.87×10^{-4}
LJP006 HME1 3H-canertinib-0.12	5/61	1.39×10^{-4}	1.49×10^{-3}
LJP006 BT20 3H-canertinib-10	4/33	1.45×10^{-4}	1.53×10^{-3}
LJP006 HME1 24H-canertinib-0.12	5/64	1.75×10^{-4}	1.81×10^{-3}
LJP006 HME1 24H-canertinib-0.04	5/72	3.05×10^{-4}	2.90×10^{-3}
LJP006 HME1 24H-canertinib-0.37	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP006 HME1 3H-canertinib-0.37	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP006 MDAMB231 24H-canertinib-10	5/76	3.92×10^{-4}	3.56×10^{-3}
LJP006 SKBR3 3H-canertinib-0.37	3/19	4.68×10^{-4}	4.14×10^{-3}
LJP006 A375 24H-canertinib-3.33	4/45	4.88×10^{-4}	4.29×10^{-3}
LJP006 HME1 24H-canertinib-1.11	5/82	5.56×10^{-4}	4.77×10^{-3}
LJP006 MCF7 24H-canertinib-10	5/83	5.88×10^{-4}	4.98×10^{-3}
LJP006 A375 24H-canertinib-1.11	4/51	7.89×10^{-4}	6.40×10^{-3}
LJP006 MCF10A 3H-canertinib-0.04	4/51	7.89×10^{-4}	6.39×10^{-3}
LJP006 BT20 3H-canertinib-0.12	3/24	9.48×10^{-4}	7.48×10^{-3}
LJP006 SKBR3 24H-canertinib-0.04	5/93	9.86×10^{-4}	7.71×10^{-3}
LJP006 HCC515 24H-canertinib-0.04	3/25	1.07×10^{-3}	8.26×10^{-3}
LJP006 HME1 3H-canertinib-0.04	4/57	1.20×10^{-3}	9.10×10^{-3}
LJP006 SKBR3 3H-canertinib-10	3/26	1.20×10^{-3}	9.09×10^{-3}
LJP006 MDAMB231 3H-canertinib-10	4/62	1.64×10^{-3}	1.18×10^{-2}
LJP006 BT20 24H-canertinib-0.12	3/32	2.22×10^{-3}	1.51×10^{-2}
LJP006 MCF7 24H-canertinib-3.33	3/37	3.37×10^{-3}	2.13×10^{-2}
LJP006 HCC515 24H-canertinib-0.37	3/39	3.92×10^{-3}	2.41×10^{-2}
LJP006 MCF10A 24H-canertinib-0.04	6/186	4.25×10^{-3}	2.57×10^{-2}
LJP006 A549 24H-canertinib-10	3/43	5.16×10^{-3}	3.00×10^{-2}
LJP006 MDAMB231 24H-canertinib-3.33	5	2/17	8.29×10^{-3}

Table S8: BX-795 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up/down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP009 PC3 24H-BX-795-10	18/92	3.37×10^{-20}	1.01×10^{-16}
LJP009 HT29 24H-BX-795-10	14/102	1.04×10^{-13}	3.95×10^{-11}
LJP009 HCC515 24H-BX-795-10	9/101	1.40×10^{-7}	4.80×10^{-6}
LJP009 HEPG2 24H-BX-795-10	8/81	3.18×10^{-7}	9.42×10^{-6}
LJP009 MCF7 24H-BX-795-10	9/113	3.68×10^{-7}	1.07×10^{-5}
LJP009 MCF7 24H-BX-795-3.33	5/58	1.09×10^{-4}	1.24×10^{-3}
LJP009 A549 24H-BX-795-10	4/40	3.09×10^{-4}	2.94×10^{-3}
LJP009 HA1E 24H-BX-795-10	3/34	2.64×10^{-3}	1.74×10^{-2}
LJP009 A375 24H-BX-795-1.11	3/51	8.31×10^{-3}	4.26×10^{-2}
LINCS L1000 Chem Pert down			
LJP009 HA1E 24H-BX-795-10	6/43	1.27×10^{-6}	2.84×10^{-5}
LJP009 HA1E 24H-BX-795-3.33	4/37	2.28×10^{-4}	2.27×10^{-3}
LJP009 HEPG2 24H-BX-795-3.33	3/36	3.11×10^{-3}	2.01×10^{-2}
LJP009 HEPG2 24H-BX-795-10	4/94	7.35×10^{-3}	3.97×10^{-2}

Table S9: Sorafenib significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 SKBR3 3H-sorafenib-10	15/56	2.94×10^{-19}	8.10×10^{-16}
LJP006 A549 24H-sorafenib-10	14/146	1.55×10^{-11}	2.50×10^{-9}
LJP006 HEPG2 24H-sorafenib-10	10/74	4.49×10^{-10}	3.87×10^{-8}
LJP006 LNCAP 24H-sorafenib-10	13/165	9.86×10^{-10}	7.44×10^{-8}
LJP006 MCF7 24H-sorafenib-10	8/59	2.55×10^{-8}	1.13×10^{-6}
LJP006 HME1 3H-sorafenib-3.33	7/44	6.24×10^{-8}	2.43×10^{-6}
LJP006 HME1 24H-sorafenib-3.33	9/107	2.30×10^{-7}	7.23×10^{-6}
LJP006 PC3 24H-sorafenib-10	8/78	2.37×10^{-7}	7.36×10^{-6}
LJP006 SKBR3 24H-sorafenib-10	9/111	3.16×10^{-7}	9.36×10^{-6}
LJP006 HT29 24H-sorafenib-10	7/57	3.94×10^{-7}	1.13×10^{-5}
LJP006 HCC515 24H-sorafenib-10	9/117	4.95×10^{-7}	1.38×10^{-5}
LJP006 BT20 24H-sorafenib-10	8/86	5.07×10^{-7}	1.40×10^{-5}
LJP006 HA1E 24H-sorafenib-10	9/119	5.72×10^{-7}	1.55×10^{-5}
LJP006 HME1 24H-sorafenib-10	8/111	3.55×10^{-6}	7.05×10^{-5}
LJP006 BT20 3H-sorafenib-10	4/20	1.86×10^{-5}	2.78×10^{-4}
LJP006 HME1 3H-sorafenib-10	7/114	4.16×10^{-5}	5.55×10^{-4}
LJP006 A375 24H-sorafenib-10	6/84	6.43×10^{-5}	7.96×10^{-4}
LJP006 HME1 24H-sorafenib-1.11	5/78	4.42×10^{-4}	3.96×10^{-3}
LJP006 HEPG2 24H-sorafenib-3.33	4/53	9.12×10^{-4}	7.24×10^{-3}
LINCS L1000 Chem Pert down			
LJP006 HA1E 24H-sorafenib-10	12/92	1.18×10^{-11}	1.80×10^{-9}
LJP006 HME1 24H-sorafenib-10	10/95	5.46×10^{-9}	2.92×10^{-7}
LJP006 HEPG2 24H-sorafenib-10	9/91	5.63×10^{-8}	2.07×10^{-6}
LJP006 HS578T 24H-sorafenib-10	7/63	7.91×10^{-7}	1.89×10^{-5}
LJP006 HEPG2 24H-sorafenib-3.33	6/51	3.55×10^{-6}	6.65×10^{-5}
LJP006 HS578T 3H-sorafenib-10	5/41	2.00×10^{-5}	2.92×10^{-4}
LJP006 HME1 3H-sorafenib-10	6/74	3.13×10^{-5}	4.30×10^{-4}
LJP006 BT20 24H-sorafenib-10	6/79	4.54×10^{-5}	5.84×10^{-4}
LJP006 MDAMB231 3H-sorafenib-10	5/58	1.09×10^{-4}	1.21×10^{-3}
LJP006 SKBR3 24H-sorafenib-10	5/125	3.62×10^{-3}	2.27×10^{-2}
LJP006 HME1 24H-sorafenib-3.33	4/88	5.83×10^{-3}	3.31×10^{-2}
LJP006 MDAMB231 3H-sorafenib-1.11	3/48	7.03×10^{-3}	3.82×10^{-2}

Table S10: QL-X-138 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 MCF10A 24H-QL-X-138-3.33	11/105	9.66×10^{-10}	7.34×10^{-8}
LJP006 HCC515 24H-QL-X-138-10	13/169	1.32×10^{-9}	9.25×10^{-8}
LJP006 HME1 3H-QL-X-138-3.33	11/111	1.76×10^{-9}	1.17×10^{-7}
LJP006 MDAMB231 24H-QL-X-138-1.11	6/25	4.16×10^{-8}	1.70×10^{-6}
LJP006 HME1 24H-QL-X-138-3.33	11/150	4.21×10^{-8}	1.70×10^{-6}
LJP006 PC3 24H-QL-X-138-3.33	8/68	8.00×10^{-8}	2.98×10^{-6}
LJP006 HME1 24H-QL-X-138-1.11	9/111	3.16×10^{-7}	9.39×10^{-6}
LJP006 HEPG2 24H-QL-X-138-10	9/127	9.91×10^{-7}	2.45×10^{-5}
LJP006 HME1 3H-QL-X-138-0.37	6/48	2.47×10^{-6}	5.22×10^{-5}
LJP006 A375 24H-QL-X-138-1.11	6/50	3.16×10^{-6}	6.37×10^{-5}
LJP006 HEPG2 24H-QL-X-138-1.11	6/51	3.55×10^{-6}	7.02×10^{-5}
LJP006 MCF10A 3H-QL-X-138-1.11	5/30	4.09×10^{-6}	7.86×10^{-5}
LJP006 A375 24H-QL-X-138-10	9/164	8.19×10^{-6}	1.41×10^{-4}
LJP006 HEPG2 24H-QL-X-138-3.33	7/92	1.03×10^{-5}	1.69×10^{-4}
LJP006 MCF7 24H-QL-X-138-3.33	6/65	1.48×10^{-5}	2.30×10^{-4}
LJP006 A549 24H-QL-X-138-10	8/149	3.08×10^{-5}	4.31×10^{-4}
LJP006 HT29 24H-QL-X-138-10	5/46	3.54×10^{-5}	4.83×10^{-4}
LJP006 HCC515 24H-QL-X-138-3.33	5/53	7.07×10^{-5}	8.57×10^{-4}
LJP006 HS578T 24H-QL-X-138-0.37	5/54	7.75×10^{-5}	9.27×10^{-4}
LJP006 HME1 3H-QL-X-138-10	6/90	9.46×10^{-5}	1.10×10^{-3}
LJP006 SKBR3 24H-QL-X-138-0.37	5/62	1.50×10^{-4}	1.61×10^{-3}
LJP006 HME1 24H-QL-X-138-10	8/189	1.64×10^{-4}	1.72×10^{-3}
LJP006 LNCAP 24H-QL-X-138-3.33	5/65	1.88×10^{-4}	1.93×10^{-3}
LJP006 MCF7 24H-QL-X-138-0.12	4/42	3.74×10^{-4}	3.44×10^{-3}
LJP006 MCF10A 3H-QL-X-138-0.37	4/46	5.31×10^{-4}	4.63×10^{-3}
LJP006 SKBR3 24H-QL-X-138-1.11	5/83	5.88×10^{-4}	5.02×10^{-3}
LJP006 PC3 24H-QL-X-138-10	7/186	8.46×10^{-4}	6.83×10^{-3}
LJP006 MDAMB231 3H-QL-X-138-10	4/54	9.79×10^{-4}	7.68×10^{-3}
LJP006 PC3 24H-QL-X-138-1.11	4/55	1.05×10^{-3}	8.14×10^{-3}
LJP006 MDAMB231 24H-QL-X-138-3.33	3/25	1.07×10^{-3}	8.26×10^{-3}
LJP006 HS578T 24H-QL-X-138-0.12	4/56	1.12×10^{-3}	8.58×10^{-3}
LJP006 A375 24H-QL-X-138-3.33	5/97	1.19×10^{-3}	9.04×10^{-3}
LJP006 HS578T 24H-QL-X-138-1.11	4/58	1.28×10^{-3}	9.54×10^{-3}
LJP006 MCF7 24H-QL-X-138-1.11	4/59	1.37×10^{-3}	1.00×10^{-2}
LJP006 MCF7 24H-QL-X-138-10	5/101	1.43×10^{-3}	1.04×10^{-2}
LJP006 SKBR3 24H-QL-X-138-10	6/173	2.98×10^{-3}	1.91×10^{-2}
LJP006 BT20 24H-QL-X-138-10	6/177	3.34×10^{-3}	2.10×10^{-2}
LJP006 PC3 24H-QL-X-138-0.37	3/37	3.37×10^{-3}	2.11×10^{-2}
LJP006 HS578T 3H-QL-X-138-10	4/77	3.63×10^{-3}	2.24×10^{-2}
LJP006 MCF10A 24H-QL-X-138-10	6/188	4.48×10^{-3}	2.65×10^{-2}
LJP006 HS578T 3H-QL-X-138-3.33	3/42	4.83×10^{-3}	2.79×10^{-2}
LJP006 LNCAP 24H-QL-X-138-1.11	3/44	5.51×10^{-3}	3.09×10^{-2}
LJP006 BT20 24H-QL-X-138-3.33	4/91	6.56×10^{-3}	3.54×10^{-2}
LJP006 MCF7 3H-QL-X-138-10	3/51	8.31×10^{-3}	4.25×10^{-2}

Table S11: QL-X-138 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 HA1E 24H-QL-X-138-10	33/219	1.76×10^{-32}	5.84×10^{-28}
LJP006 HA1E 24H-QL-X-138-3.33	21/201	1.62×10^{-17}	4.47×10^{-14}
LJP006 HS578T 24H-QL-X-138-10	22/230	1.77×10^{-17}	4.51×10^{-14}
LJP006 BT20 24H-QL-X-138-10	19/157	3.74×10^{-17}	7.29×10^{-14}
LJP006 HS578T 24H-QL-X-138-3.33	13/97	1.11×10^{-12}	2.86×10^{-10}
LJP006 HA1E 24H-QL-X-138-0.37	11/60	1.82×10^{-12}	4.22×10^{-10}
LJP006 HA1E 24H-QL-X-138-1.11	13/101	1.89×10^{-12}	4.27×10^{-10}
LJP006 SKBR3 24H-QL-X-138-10	15/153	2.04×10^{-12}	4.53×10^{-10}
LJP006 HME1 24H-QL-X-138-10	14/149	2.04×10^{-11}	2.81×10^{-9}
LJP006 BT20 24H-QL-X-138-3.33	10/71	2.95×10^{-10}	2.58×10^{-8}
LJP006 HCC515 24H-QL-X-138-10	11/124	5.74×10^{-9}	3.04×10^{-7}
LJP006 HEPG2 24H-QL-X-138-10	12/176	2.27×10^{-8}	9.40×10^{-7}
LJP006 BT20 24H-QL-X-138-1.11	9/98	1.08×10^{-7}	3.57×10^{-6}
LJP006 MDAMB231 24H-QL-X-138-3.33	6/29	1.09×10^{-7}	3.60×10^{-6}
LJP006 PC3 24H-QL-X-138-10	10/148	3.80×10^{-7}	1.02×10^{-5}
LJP006 HS578T 3H-QL-X-138-10	7/68	1.34×10^{-6}	2.95×10^{-5}
LJP006 A549 24H-QL-X-138-10	9/136	1.76×10^{-6}	3.71×10^{-5}
LJP006 LNCAP 24H-QL-X-138-1.11	8/105	2.34×10^{-6}	4.73×10^{-5}
LJP006 HS578T 24H-QL-X-138-0.37	6/52	3.99×10^{-6}	7.40×10^{-5}
LJP006 HME1 24H-QL-X-138-3.33	8/117	5.26×10^{-6}	9.38×10^{-5}
LJP006 A375 24H-QL-X-138-3.33	8/118	5.61×10^{-6}	9.92×10^{-5}
LJP006 HME1 3H-QL-X-138-3.33	6/56	6.19×10^{-6}	1.07×10^{-4}
LJP006 LNCAP 24H-QL-X-138-3.33	8/121	6.76×10^{-6}	1.16×10^{-4}
LJP006 MCF7 24H-QL-X-138-1.11	5/35	9.01×10^{-6}	1.48×10^{-4}
LJP006 HME1 24H-QL-X-138-1.11	7/92	1.03×10^{-5}	1.66×10^{-4}
LJP006 SKBR3 24H-QL-X-138-0.12	5/38	1.37×10^{-5}	2.10×10^{-4}
LJP006 HA1E 24H-QL-X-138-0.12	5/40	1.77×10^{-5}	2.63×10^{-4}
LJP006 HT29 24H-QL-X-138-10	5/40	1.77×10^{-5}	2.63×10^{-4}
LJP006 MCF7 24H-QL-X-138-0.12	6/77	3.93×10^{-5}	5.20×10^{-4}
LJP006 SKBR3 24H-QL-X-138-1.11	6/81	5.24×10^{-5}	6.60×10^{-4}
LJP006 BT20 3H-QL-X-138-3.33	4/29	8.61×10^{-5}	9.96×10^{-4}
LJP006 A375 24H-QL-X-138-10	8/176	1.00×10^{-4}	1.13×10^{-3}
LJP006 MCF10A 24H-QL-X-138-10	7/133	1.11×10^{-4}	1.22×10^{-3}
LJP006 BT20 3H-QL-X-138-10	4/35	1.83×10^{-4}	1.87×10^{-3}
LJP006 HS578T 24H-QL-X-138-1.11	5/68	2.33×10^{-4}	2.30×10^{-3}
LJP006 MCF7 24H-QL-X-138-10	5/82	5.56×10^{-4}	4.77×10^{-3}
LJP006 SKBR3 3H-QL-X-138-1.11	3/22	7.30×10^{-4}	6.00×10^{-3}
LJP006 PC3 24H-QL-X-138-0.12	3/23	8.35×10^{-4}	6.72×10^{-3}
LJP006 SKBR3 3H-QL-X-138-0.37	3/25	1.07×10^{-3}	8.25×10^{-3}
LJP006 MCF7 24H-QL-X-138-0.37	3/28	1.50×10^{-3}	1.09×10^{-2}
LJP006 HME1 3H-QL-X-138-0.37	3/32	2.22×10^{-3}	1.51×10^{-2}
LJP006 SKBR3 24H-QL-X-138-0.37	4/68	2.31×10^{-3}	1.56×10^{-2}
LJP006 A375 24H-QL-X-138-1.11	3/34	2.64×10^{-3}	1.75×10^{-2}
LJP006 BT20 24H-QL-X-138-0.37	3/36	3.11×10^{-3}	2.01×10^{-2}
LJP006 PC3 24H-QL-X-138-0.37	3/39	3.92×10^{-3}	2.40×10^{-2}
LJP006 MCF7 24H-QL-X-138-3.33	3/42	4.83×10^{-3}	2.84×10^{-2}
LJP006 SKBR3 3H-QL-X-138-3.33	3/45	5.87×10^{-3}	3.31×10^{-2}
LJP006 BT20 3H-QL-X-138-0.37	2/15	6.47×10^{-3}	3.57×10^{-2}
LJP006 SKBR3 24H-QL-X-138-3.33	5/144	6.56×10^{-3}	3.62×10^{-2}
LJP006 PC3 24H-QL-X-138-3.33	3/48	7.03×10^{-3}	3.82×10^{-2}

Table S12: Radicicol significantly affects the expression of the selected 163 genes due to ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 MCF7 24H-radicicol-10	17/149	5.02×10^{-15}	3.39×10^{-12}
LJP006 SKBR3 3H-radicicol-10	13/74	2.94×10^{-14}	1.33×10^{-11}
LJP006 MCF7 24H-radicicol-3.33	15/123	7.94×10^{-14}	3.09×10^{-11}
LJP005 HS578T 3H-radicicol-10	10/50	7.59×10^{-12}	1.43×10^{-9}
LJP005 MCF10A 24H-radicicol-3.33	15/184	2.95×10^{-11}	4.18×10^{-9}
LJP005 MCF7 24H-radicicol-1.11	12/109	9.04×10^{-11}	1.05×10^{-8}
LJP005 HA1E 24H-radicicol-3.33	11/87	1.23×10^{-10}	1.34×10^{-8}
LJP006 MCF7 24H-radicicol-1.11	11/87	1.23×10^{-10}	1.33×10^{-8}
LJP006 HME1 3H-radicicol-3.33	11/92	2.28×10^{-10}	2.20×10^{-8}
LJP006 HME1 24H-radicicol-3.33	13/147	2.34×10^{-10}	2.24×10^{-8}
LJP006 HEPG2 24H-radicicol-10	14/179	2.40×10^{-10}	2.29×10^{-8}
LJP006 BT20 24H-radicicol-10	14/180	2.59×10^{-10}	2.43×10^{-8}
LJP005 BT20 3H-radicicol-10	10/71	2.95×10^{-10}	2.74×10^{-8}
LJP005 SKBR3 3H-radicicol-10	10/71	2.95×10^{-10}	2.74×10^{-8}
LJP005 MCF10A 3H-radicicol-3.33	11/97	4.08×10^{-10}	3.56×10^{-8}
LJP005 MCF7 24H-radicicol-10	13/159	6.23×10^{-10}	5.11×10^{-8}
LJP005 SKBR3 24H-radicicol-10	13/163	8.48×10^{-10}	6.58×10^{-8}
LJP005 MCF7 24H-radicicol-3.33	12/133	9.36×10^{-10}	7.16×10^{-8}
LJP005 SKBR3 3H-radicicol-0.04	7/26	1.21×10^{-9}	8.61×10^{-8}
LJP005 HEPG2 24H-radicicol-1.11	11/112	1.94×10^{-9}	1.27×10^{-7}
LJP005 MCF7 3H-radicicol-0.12	9/66	3.16×10^{-9}	1.90×10^{-7}
LJP005 MCF10A 24H-radicicol-10	14/219	3.37×10^{-9}	2.00×10^{-7}
LJP005 MCF10A 3H-radicicol-10	10/97	6.70×10^{-9}	3.67×10^{-7}
LJP005 MDAMB231 24H-radicicol-3.33	9/73	7.90×10^{-9}	4.23×10^{-7}
LJP006 HCC515 24H-radicicol-10	10/99	8.19×10^{-9}	4.35×10^{-7}
LJP006 HA1E 24H-radicicol-3.33	10/100	9.03×10^{-9}	4.75×10^{-7}
LJP006 SKBR3 24H-radicicol-10	13/203	1.23×10^{-8}	6.08×10^{-7}
LJP005 A375 24H-radicicol-3.33	10/104	1.32×10^{-8}	6.46×10^{-7}
LJP005 SKBR3 3H-radicicol-1.11	7/37	1.76×10^{-8}	8.22×10^{-7}
LJP006 HME1 24H-radicicol-0.37	11/145	2.97×10^{-8}	1.27×10^{-6}
LJP006 LNCAP 3H-radicicol-0.04	7/40	3.12×10^{-8}	1.33×10^{-6}
LJP006 MCF10A 24H-radicicol-0.37	12/186	4.19×10^{-8}	1.70×10^{-6}
LJP005 BT20 3H-radicicol-1.11	8/65	5.57×10^{-8}	2.20×10^{-6}
LJP006 BT20 3H-radicicol-10	7/45	7.34×10^{-8}	2.78×10^{-6}
LJP006 LNCAP 24H-radicicol-10	10/131	1.21×10^{-7}	4.24×10^{-6}
LJP005 PC3 24H-radicicol-10	8/72	1.26×10^{-7}	4.38×10^{-6}
LJP005 HS578T 24H-radicicol-1.11	7/49	1.35×10^{-7}	4.66×10^{-6}
LJP005 HCC515 24H-radicicol-10	9/101	1.40×10^{-7}	4.79×10^{-6}
LJP005 HEPG2 24H-radicicol-3.33	10/133	1.40×10^{-7}	4.78×10^{-6}
LJP006 PC3 24H-radicicol-10	10/139	2.12×10^{-7}	6.73×10^{-6}
LJP005 HA1E 24H-radicicol-10	11/177	2.29×10^{-7}	7.18×10^{-6}
LJP006 MCF10A 24H-radicicol-3.33	11/178	2.42×10^{-7}	7.51×10^{-6}
LJP005 BT20 3H-radicicol-0.04	5/18	2.66×10^{-7}	8.17×10^{-6}
LJP006 MCF10A 3H-radicicol-0.37	7/57	3.94×10^{-7}	1.13×10^{-5}
LJP006 MCF7 3H-radicicol-3.33	6/37	5.04×10^{-7}	1.39×10^{-5}
LJP006 SKBR3 3H-radicicol-3.33	8/87	5.54×10^{-7}	1.52×10^{-5}
LJP006 HEPG2 24H-radicicol-3.33	8/90	7.20×10^{-7}	1.89×10^{-5}
LJP006 MCF10A 24H-radicicol-0.12	9/123	7.57×10^{-7}	1.97×10^{-5}
LJP005 MCF10A 24H-radicicol-1.11	11/202	8.54×10^{-7}	2.17×10^{-5}
LJP005 HCC515 24H-radicicol-3.33	7/64	8.83×10^{-7}	2.23×10^{-5}
LJP006 HCC515 24H-radicicol-1.11	8/93	9.27×10^{-7}	2.33×10^{-5}
LJP005 MCF10A 3H-radicicol-0.04	6/42	1.10×10^{-6}	2.66×10^{-5}
LJP006 LNCAP 24H-radicicol-3.33	8/96	1.18×10^{-6}	2.84×10^{-5}

Table S12: (Continued)

LJP005 SKBR3 3H-radicol-3.33	7/67	1.21×10^{-6}	2.89×10^{-5}
LJP005 PC3 24H-radicol-0.37	6/43	1.27×10^{-6}	3.02×10^{-5}
LJP006 MCF10A 24H-radicol-10	11/212	1.37×10^{-6}	3.21×10^{-5}
LJP005 SKBR3 24H-radicol-3.33	9/133	1.46×10^{-6}	3.40×10^{-5}
LJP005 HEPG2 24H-radicol-10	10/177	1.96×10^{-6}	4.30×10^{-5}
LJP006 A375 24H-radicol-3.33	7/74	2.39×10^{-6}	5.08×10^{-5}
LJP006 HS578T 3H-radicol-1.11	6/49	2.80×10^{-6}	5.81×10^{-5}
LJP006 SKBR3 24H-radicol-3.33	8/109	3.10×10^{-6}	6.32×10^{-5}
LJP005 BT20 24H-radicol-1.11	6/50	3.16×10^{-6}	6.38×10^{-5}
LJP005 MCF10A 3H-radicol-1.11	6/50	3.16×10^{-6}	6.38×10^{-5}
LJP006 MCF10A 3H-radicol-10	8/110	3.32×10^{-6}	6.65×10^{-5}
LJP005 MCF10A 24H-radicol-0.12	8/111	3.55×10^{-6}	7.06×10^{-5}
LJP006 MCF7 24H-radicol-0.37	6/51	3.55×10^{-6}	7.02×10^{-5}
LJP006 HA1E 24H-radicol-0.37	7/79	3.72×10^{-6}	7.30×10^{-5}
LJP006 PC3 24H-radicol-0.37	5/31	4.84×10^{-6}	9.15×10^{-5}
LJP006 HME1 3H-radicol-10	8/119	5.97×10^{-6}	1.09×10^{-4}
LJP006 HME1 3H-radicol-1.11	7/86	6.57×10^{-6}	1.18×10^{-4}
LJP006 MCF10A 24H-radicol-1.11	10/204	6.95×10^{-6}	1.24×10^{-4}
LJP006 HS578T 24H-radicol-3.33	8/123	7.63×10^{-6}	1.33×10^{-4}
LJP005 MDAMB231 3H-radicol-0.12	5/35	9.01×10^{-6}	1.53×10^{-4}
LJP006 MCF10A 3H-radicol-0.12	6/60	9.30×10^{-6}	1.57×10^{-4}
LJP005 HA1E 24H-radicol-0.37	6/64	1.36×10^{-5}	2.15×10^{-4}
LJP006 MDAMB231 24H-radicol-10	7/96	1.36×10^{-5}	2.14×10^{-4}
LJP006 HME1 3H-radicol-0.04	4/19	1.50×10^{-5}	2.32×10^{-4}
LJP006 MCF7 3H-radicol-0.12	4/19	1.50×10^{-5}	2.32×10^{-4}
LJP005 MDAMB231 24H-radicol-10	5/40	1.77×10^{-5}	2.67×10^{-4}
LJP006 HME1 3H-radicol-0.12	5/41	2.00×10^{-5}	2.95×10^{-4}
LJP005 SKBR3 24H-radicol-0.12	6/70	2.28×10^{-5}	3.31×10^{-4}
LJP005 MDAMB231 3H-radicol-1.11	5/43	2.53×10^{-5}	3.63×10^{-4}
LJP005 HT29 24H-radicol-10	6/72	2.68×10^{-5}	3.80×10^{-4}
LJP006 HME1 24H-radicol-0.12	7/111	3.50×10^{-5}	4.80×10^{-4}
LJP006 LNCAP 3H-radicol-3.33	5/46	3.54×10^{-5}	4.83×10^{-4}
LJP006 SKBR3 3H-radicol-0.04	4/24	3.98×10^{-5}	5.32×10^{-4}
LJP006 MCF7 3H-radicol-10	5/48	4.36×10^{-5}	5.77×10^{-4}
LJP006 HCC515 24H-radicol-3.33	6/79	4.54×10^{-5}	5.97×10^{-4}
LJP006 MCF10A 3H-radicol-3.33	6/79	4.54×10^{-5}	5.97×10^{-4}
LJP005 BT20 24H-radicol-10	9/204	4.63×10^{-5}	6.06×10^{-4}
LJP006 PC3 24H-radicol-0.12	4/25	4.71×10^{-5}	6.14×10^{-4}
LJP005 SKBR3 24H-radicol-0.37	7/119	5.47×10^{-5}	6.99×10^{-4}
LJP005 MCF10A 24H-radicol-0.37	8/162	5.59×10^{-5}	7.11×10^{-4}
LJP005 SKBR3 3H-radicol-0.37	5/53	7.07×10^{-5}	8.58×10^{-4}
LJP006 MDAMB231 3H-radicol-1.11	4/29	8.61×10^{-5}	1.01×10^{-3}
LJP006 SKBR3 24H-radicol-0.37	6/90	9.46×10^{-5}	1.10×10^{-3}
LJP005 BT20 24H-radicol-3.33	6/92	1.07×10^{-4}	1.21×10^{-3}
LJP006 LNCAP 3H-radicol-0.37	4/32	1.28×10^{-4}	1.40×10^{-3}
LJP006 HT29 24H-radicol-10	5/60	1.29×10^{-4}	1.41×10^{-3}
LJP006 A549 24H-radicol-0.37	4/33	1.45×10^{-4}	1.56×10^{-3}
LJP006 HME1 3H-radicol-0.37	5/63	1.62×10^{-4}	1.71×10^{-3}
LJP006 SKBR3 24H-radicol-1.11	6/100	1.69×10^{-4}	1.77×10^{-3}
LJP005 HCC515 24H-radicol-1.11	5/64	1.75×10^{-4}	1.82×10^{-3}
LJP006 HA1E 24H-radicol-10	9/248	2.05×10^{-4}	2.06×10^{-3}
LJP006 LNCAP 3H-radicol-0.12	4/37	2.28×10^{-4}	2.27×10^{-3}
LJP006 MDAMB231 3H-radicol-10	4/39	2.80×10^{-4}	2.71×10^{-3}
LJP006 BT20 24H-radicol-3.33	7/155	2.84×10^{-4}	2.74×10^{-3}
LJP006 MDAMB231 24H-radicol-3.33	5/72	3.05×10^{-4}	2.90×10^{-3}
LJP005 MCF10A 3H-radicol-0.37	4/40	3.09×10^{-4}	2.94×10^{-3}

Table S12: (Continued)

LJP005 HS578T 3H-radicol-1.11	4/41	3.40×10^{-4}	3.20×10^{-3}
LJP005 SKBR3 3H-radicol-0.12	4/41	3.40×10^{-4}	3.19×10^{-3}
LJP006 BT20 24H-radicol-0.12	4/42	3.74×10^{-4}	3.44×10^{-3}
LJP006 BT20 24H-radicol-1.11	6/119	4.34×10^{-4}	3.91×10^{-3}
LJP006 MCF7 24H-radicol-0.12	4/44	4.48×10^{-4}	4.00×10^{-3}
LJP006 PC3 24H-radicol-3.33	5/80	4.97×10^{-4}	4.36×10^{-3}
LJP006 PC3 24H-radicol-1.11	4/47	5.77×10^{-4}	4.95×10^{-3}
LJP005 A375 24H-radicol-1.11	5/84	6.21×10^{-4}	5.28×10^{-3}
LJP006 HS578T 24H-radicol-10	5/87	7.29×10^{-4}	6.05×10^{-3}
LJP005 BT20 3H-radicol-0.12	3/22	7.30×10^{-4}	6.05×10^{-3}
LJP006 A375 24H-radicol-10	6/132	7.51×10^{-4}	6.16×10^{-3}
LJP005 MCF7 3H-radicol-0.37	4/52	8.49×10^{-4}	6.84×10^{-3}
LJP005 HA1E 24H-radicol-0.12	4/53	9.12×10^{-4}	7.26×10^{-3}
LJP006 SKBR3 3H-radicol-0.37	3/24	9.48×10^{-4}	7.49×10^{-3}
LJP005 BT20 3H-radicol-3.33	4/54	9.79×10^{-4}	7.71×10^{-3}
LJP005 MDAMB231 3H-radicol-10	4/54	9.79×10^{-4}	7.69×10^{-3}
LJP005 MDAMB231 24H-radicol-0.37	3/25	1.07×10^{-3}	8.28×10^{-3}
LJP005 HS578T 24H-radicol-10	5/96	1.14×10^{-3}	8.67×10^{-3}
LJP006 MDAMB231 3H-radicol-0.04	3/26	1.20×10^{-3}	9.07×10^{-3}
LJP005 MCF7 3H-radicol-10	4/61	1.55×10^{-3}	1.11×10^{-2}
LJP005 MDAMB231 3H-radicol-3.33	3/29	1.66×10^{-3}	1.18×10^{-2}
LJP006 HME1 24H-radicol-1.11	5/108	1.92×10^{-3}	1.33×10^{-2}
LJP005 HEPG2 24H-radicol-0.37	4/67	2.19×10^{-3}	1.49×10^{-2}
LJP005 HS578T 3H-radicol-0.12	3/32	2.22×10^{-3}	1.50×10^{-2}
LJP006 MDAMB231 3H-radicol-0.37	3/32	2.22×10^{-3}	1.50×10^{-2}
LJP006 MDAMB231 24H-radicol-1.11	4/68	2.31×10^{-3}	1.55×10^{-2}
LJP005 MDAMB231 24H-radicol-1.11	3/34	2.64×10^{-3}	1.74×10^{-2}
LJP006 HS578T 3H-radicol-0.12	3/34	2.64×10^{-3}	1.73×10^{-2}
LJP005 BT20 24H-radicol-0.12	3/35	2.87×10^{-3}	1.86×10^{-2}
LJP005 HS578T 3H-radicol-0.04	3/39	3.92×10^{-3}	2.38×10^{-2}
LJP006 HS578T 3H-radicol-3.33	3/41	4.51×10^{-3}	2.66×10^{-2}
LJP006 LNCAP 3H-radicol-1.11	3/41	4.51×10^{-3}	2.65×10^{-2}
LJP006 LNCAP 24H-radicol-1.11	4/84	4.95×10^{-3}	2.84×10^{-2}
LJP005 HS578T 3H-radicol-3.33	3/44	5.51×10^{-3}	3.09×10^{-2}
LJP006 HA1E 24H-radicol-1.11	4/88	5.83×10^{-3}	3.24×10^{-2}
LJP006 A375 24H-radicol-0.37	4/89	6.07×10^{-3}	3.33×10^{-2}
LJP005 HA1E 24H-radicol-1.11	4/94	7.35×10^{-3}	3.89×10^{-2}
LJP005 HS578T 24H-radicol-0.37	3/49	7.44×10^{-3}	3.92×10^{-2}
LJP005 MCF7 24H-radicol-0.37	3/49	7.44×10^{-3}	3.92×10^{-2}
LJP006 BT20 24H-radicol-0.37	3/50	7.87×10^{-3}	4.10×10^{-2}
LJP005 HCC515 24H-radicol-0.37	3/53	9.24×10^{-3}	4.63×10^{-2}
LJP006 LNCAP 3H-radicol-10	3/53	9.24×10^{-3}	4.62×10^{-2}
LJP006 HS578T 3H-radicol-10	3/54	9.73×10^{-3}	4.82×10^{-2}

Table S13: Radicicol significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 HA1E 24H-radicicol-3.33	22/160	6.04×10^{-21}	1.00×10^{-16}
LJP005 HS578T 24H-radicicol-10	16/109	5.56×10^{-16}	6.14×10^{-13}
LJP005 HS578T 24H-radicicol-3.33	15/98	2.46×10^{-15}	2.09×10^{-12}
LJP005 SKBR3 24H-radicicol-0.12	11/56	8.13×10^{-13}	2.23×10^{-10}
LJP005 SKBR3 24H-radicicol-0.37	13/106	3.57×10^{-12}	7.25×10^{-10}
LJP005 HA1E 24H-radicicol-3.33	14/132	3.87×10^{-12}	7.68×10^{-10}
LJP006 A375 24H-radicicol-0.37	14/133	4.30×10^{-12}	8.23×10^{-10}
LJP006 MDAMB231 24H-radicicol-10	13/108	4.55×10^{-12}	8.52×10^{-10}
LJP006 MCF10A 3H-radicicol-1.11	12/95	1.74×10^{-11}	2.48×10^{-9}
LJP006 HS578T 24H-radicicol-10	13/128	4.07×10^{-11}	5.13×10^{-9}
LJP006 MCF10A 24H-radicicol-10	15/190	4.67×10^{-11}	5.75×10^{-9}
LJP005 MDAMB231 24H-radicicol-3.33	12/107	7.25×10^{-11}	8.14×10^{-9}
LJP006 SKBR3 24H-radicicol-0.37	12/108	8.10×10^{-11}	8.71×10^{-9}
LJP006 HS578T 24H-radicicol-3.33	12/115	1.71×10^{-10}	1.61×10^{-8}
LJP006 HCC515 24H-radicicol-10	13/158	5.76×10^{-10}	4.45×10^{-8}
LJP005 PC3 24H-radicicol-1.11	9/58	9.61×10^{-10}	6.80×10^{-8}
LJP005 A375 24H-radicicol-1.11	12/134	1.02×10^{-9}	7.15×10^{-8}
LJP005 A549 24H-radicicol-10	12/142	1.99×10^{-9}	1.25×10^{-7}
LJP005 MCF10A 3H-radicicol-3.33	10/90	3.20×10^{-9}	1.85×10^{-7}
LJP006 MCF10A 3H-radicicol-0.12	9/71	6.14×10^{-9}	3.19×10^{-7}
LJP006 BT20 24H-radicicol-0.37	9/75	1.01×10^{-8}	4.86×10^{-7}
LJP005 SKBR3 24H-radicicol-1.11	10/103	1.21×10^{-8}	5.66×10^{-7}
LJP006 SKBR3 24H-radicicol-1.11	10/106	1.59×10^{-8}	7.07×10^{-7}
LJP006 SKBR3 24H-radicicol-0.12	8/56	1.67×10^{-8}	7.35×10^{-7}
LJP005 MCF10A 3H-radicicol-0.37	9/80	1.80×10^{-8}	7.82×10^{-7}
LJP006 HME1 24H-radicicol-3.33	12/177	2.42×10^{-8}	9.96×10^{-7}
LJP006 BT20 24H-radicicol-1.11	9/86	3.42×10^{-8}	1.34×10^{-6}
LJP006 SKBR3 24H-radicicol-3.33	10/122	6.17×10^{-8}	2.24×10^{-6}
LJP006 HS578T 3H-radicicol-0.37	7/44	6.24×10^{-8}	2.25×10^{-6}
LJP006 MCF10A 3H-radicicol-3.33	9/93	6.81×10^{-8}	2.42×10^{-6}
LJP006 HA1E 24H-radicicol-1.11	11/158	7.20×10^{-8}	2.53×10^{-6}
LJP005 PC3 24H-radicicol-0.37	7/46	8.60×10^{-8}	2.95×10^{-6}
LJP006 A549 24H-radicicol-10	10/131	1.21×10^{-7}	3.95×10^{-6}
LJP006 HME1 24H-radicicol-1.11	10/131	1.21×10^{-7}	3.94×10^{-6}
LJP005 MCF10A 24H-radicicol-10	12/212	1.76×10^{-7}	5.44×10^{-6}
LJP006 HS578T 24H-radicicol-1.11	9/106	2.12×10^{-7}	6.37×10^{-6}
LJP005 BT20 24H-radicicol-0.37	7/55	3.07×10^{-7}	8.59×10^{-6}
LJP006 MDAMB231 24H-radicicol-3.33	8/82	3.50×10^{-7}	9.56×10^{-6}
LJP005 HA1E 24H-radicicol-1.11	10/147	3.57×10^{-7}	9.68×10^{-6}
LJP006 HME1 3H-radicicol-0.37	7/57	3.94×10^{-7}	1.06×10^{-5}
LJP006 HA1E 24H-radicicol-10	9/114	3.97×10^{-7}	1.06×10^{-5}
LJP005 HCC515 24H-radicicol-10	10/154	5.49×10^{-7}	1.39×10^{-5}
LJP006 HS578T 3H-radicicol-3.33	6/44	1.46×10^{-6}	3.18×10^{-5}
LJP005 A375 24H-radicicol-0.37	8/99	1.50×10^{-6}	3.24×10^{-5}
LJP005 HA1E 24H-radicicol-0.37	7/71	1.80×10^{-6}	3.79×10^{-5}
LJP005 MCF10A 3H-radicicol-1.11	7/77	3.13×10^{-6}	6.01×10^{-5}
LJP006 BT20 24H-radicicol-3.33	8/110	3.32×10^{-6}	6.32×10^{-5}
LJP006 A375 24H-radicicol-0.12	7/78	3.41×10^{-6}	6.47×10^{-5}
LJP005 HS578T 3H-radicicol-3.33	5/32	5.70×10^{-6}	1.00×10^{-4}
LJP005 MCF10A 3H-radicicol-10	7/92	1.03×10^{-5}	1.66×10^{-4}
LJP006 MCF7 3H-radicicol-10	5/40	1.77×10^{-5}	2.63×10^{-4}
LJP006 MCF7 24H-radicicol-1.11	7/103	2.16×10^{-5}	3.12×10^{-4}
LJP006 MCF10A 3H-radicicol-0.37	6/70	2.28×10^{-5}	3.26×10^{-4}

Table S13: (Continued)

LJP005 SKBR3 24H-radicicol-3.33	8/144	2.41×10^{-5}	3.44×10^{-4}
LJP005 PC3 24H-radicicol-10	7/105	2.45×10^{-5}	3.49×10^{-4}
LJP006 HS578T 3H-radicicol-10	6/72	2.68×10^{-5}	3.77×10^{-4}
LJP006 HS578T 3H-radicicol-0.12	4/22	2.77×10^{-5}	3.88×10^{-4}
LJP005 HCC515 24H-radicicol-1.11	6/75	3.38×10^{-5}	4.60×10^{-4}
LJP006 PC3 24H-radicicol-1.11	6/75	3.38×10^{-5}	4.58×10^{-4}
LJP005 MDAMB231 3H-radicicol-3.33	4/24	3.98×10^{-5}	5.21×10^{-4}
LJP006 PC3 24H-radicicol-3.33	6/78	4.23×10^{-5}	5.50×10^{-4}
LJP005 A375 24H-radicicol-10	5/48	4.36×10^{-5}	5.66×10^{-4}
LJP005 MCF10A 3H-radicicol-0.12	5/48	4.36×10^{-5}	5.66×10^{-4}
LJP005 HCC515 24H-radicicol-0.37	6/80	4.88×10^{-5}	6.21×10^{-4}
LJP006 MCF10A 3H-radicicol-10	6/82	5.61×10^{-5}	6.99×10^{-4}
LJP005 HA1E 24H-radicicol-10	6/85	6.87×10^{-5}	8.30×10^{-4}
LJP005 SKBR3 3H-radicicol-3.33	5/53	7.07×10^{-5}	8.49×10^{-4}
LJP005 HEPG2 24H-radicicol-1.11	8/168	7.23×10^{-5}	8.63×10^{-4}
LJP006 HEPG2 24H-radicicol-1.11	6/86	7.33×10^{-5}	8.74×10^{-4}
LJP005 MDAMB231 3H-radicicol-10	5/54	7.75×10^{-5}	9.16×10^{-4}
LJP006 A375 24H-radicicol-1.11	7/132	1.05×10^{-4}	1.18×10^{-3}
LJP006 HME1 24H-radicicol-0.37	7/132	1.05×10^{-4}	1.18×10^{-3}
LJP005 BT20 24H-radicicol-0.12	5/59	1.19×10^{-4}	1.30×10^{-3}
LJP006 MDAMB231 24H-radicicol-1.11	6/97	1.43×10^{-4}	1.52×10^{-3}
LJP006 HCC515 24H-radicicol-3.33	6/98	1.52×10^{-4}	1.59×10^{-3}
LJP006 HME1 3H-radicicol-1.11	5/64	1.75×10^{-4}	1.81×10^{-3}
LJP005 HS578T 3H-radicicol-10	4/35	1.83×10^{-4}	1.88×10^{-3}
LJP005 HS578T 3H-radicicol-1.11	4/36	2.04×10^{-4}	2.06×10^{-3}
LJP005 SKBR3 3H-radicicol-0.12	5/69	2.49×10^{-4}	2.45×10^{-3}
LJP005 MCF7 24H-radicicol-1.11	6/108	2.58×10^{-4}	2.51×10^{-3}
LJP005 SKBR3 24H-radicicol-0.04	5/71	2.85×10^{-4}	2.73×10^{-3}
LJP006 HCC515 24H-radicicol-0.37	4/40	3.09×10^{-4}	2.93×10^{-3}
LJP006 HS578T 3H-radicicol-1.11	4/40	3.09×10^{-4}	2.93×10^{-3}
LJP005 MCF7 24H-radicicol-0.12	4/41	3.40×10^{-4}	3.17×10^{-3}
LJP006 BT20 24H-radicicol-0.12	4/42	3.74×10^{-4}	3.42×10^{-3}
LJP006 MCF7 24H-radicicol-10	8/216	4.03×10^{-4}	3.65×10^{-3}
LJP006 MDAMB231 3H-radicicol-10	4/46	5.31×10^{-4}	4.59×10^{-3}
LJP006 SKBR3 3H-radicicol-0.37	3/20	5.47×10^{-4}	4.71×10^{-3}
LJP006 HEPG2 24H-radicicol-0.37	4/47	5.77×10^{-4}	4.92×10^{-3}
LJP005 MCF10A 24H-radicicol-3.33	7/175	5.90×10^{-4}	5.00×10^{-3}
LJP006 BT20 3H-radicicol-10	3/21	6.35×10^{-4}	5.31×10^{-3}
LJP006 A549 24H-radicicol-0.12	3/23	8.35×10^{-4}	6.72×10^{-3}
LJP005 SKBR3 3H-radicicol-1.11	4/52	8.49×10^{-4}	6.80×10^{-3}
LJP006 SKBR3 3H-radicicol-0.12	3/25	1.07×10^{-3}	8.26×10^{-3}
LJP006 HCC515 24H-radicicol-1.11	5/96	1.14×10^{-3}	8.70×10^{-3}
LJP005 BT20 24H-radicicol-10	6/149	1.41×10^{-3}	1.04×10^{-2}
LJP005 BT20 24H-radicicol-3.33	4/60	1.45×10^{-3}	1.07×10^{-2}
LJP006 MDAMB231 3H-radicicol-1.11	3/29	1.66×10^{-3}	1.19×10^{-2}
LJP005 A375 24H-radicicol-0.12	4/65	1.96×10^{-3}	1.37×10^{-2}
LJP006 HA1E 24H-radicicol-0.37	4/67	2.19×10^{-3}	1.50×10^{-2}
LJP005 HA1E 24H-radicicol-0.12	3/33	2.42×10^{-3}	1.63×10^{-2}
LJP006 A549 24H-radicicol-0.37	3/33	2.42×10^{-3}	1.63×10^{-2}
LJP006 HME1 24H-radicicol-10	5/114	2.43×10^{-3}	1.63×10^{-2}
LJP006 LNCAP 24H-radicicol-0.37	5/119	2.93×10^{-3}	1.90×10^{-2}
LJP006 HME1 3H-radicicol-0.12	3/36	3.11×10^{-3}	2.00×10^{-2}
LJP006 MDAMB231 3H-radicicol-3.33	3/36	3.11×10^{-3}	2.00×10^{-2}
LJP006 BT20 24H-radicicol-10	5/122	3.26×10^{-3}	2.08×10^{-2}
LJP005 PC3 24H-radicicol-3.33	4/77	3.63×10^{-3}	2.27×10^{-2}

Table S13: (Continued)

LJP005 BT20 24H-radicicol-1.11	4/78	3.80×10^{-3}	2.36×10^{-2}
LJP005 MDAMB231 24H-radicicol-10	3/39	3.92×10^{-3}	2.41×10^{-2}
LJP005 HS578T 24H-radicicol-0.37	3/40	4.21×10^{-3}	2.55×10^{-2}
LJP005 HEPG2 24H-radicicol-0.37	4/81	4.35×10^{-3}	2.62×10^{-2}
LJP006 LNCAP 3H-radicicol-0.37	3/41	4.51×10^{-3}	2.70×10^{-2}
LJP006 HME1 3H-radicicol-10	4/85	5.16×10^{-3}	3.01×10^{-2}
LJP005 MDAMB231 3H-radicicol-0.12	3/44	5.51×10^{-3}	3.16×10^{-2}
LJP006 MCF10A 3H-radicicol-0.04	3/47	6.63×10^{-3}	3.64×10^{-2}
LJP005 SKBR3 3H-radicicol-0.04	3/50	7.87×10^{-3}	4.18×10^{-2}
LJP006 SKBR3 24H-radicicol-10	5/151	7.98×10^{-3}	4.23×10^{-2}
LJP005 HS578T 3H-radicicol-0.04	2/17	8.29×10^{-3}	4.37×10^{-2}
LJP005 MCF7 24H-radicicol-10	6/219	9.23×10^{-3}	4.76×10^{-2}
LJP005 HCC515 24H-radicicol-3.33	4/101	9.42×10^{-3}	4.82×10^{-2}
LJP006 HME1 24H-radicicol-0.12	4/101	9.42×10^{-3}	4.81×10^{-2}

Table S14: A443654 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 HCC515 24H-A443654-0.37	9/145	2.99×10^{-6}	6.13×10^{-5}
LJP006 HCC515 24H-A443654-0.12	7/88	7.66×10^{-6}	1.33×10^{-4}
LJP006 MCF10A 3H-A443654-0.37	6/67	1.77×10^{-5}	2.66×10^{-4}
LJP006 PC3 24H-A443654-1.11	9/200	3.97×10^{-5}	5.32×10^{-4}
LJP006 HCC515 24H-A443654-10	9/203	4.45×10^{-5}	5.87×10^{-4}
LJP006 HS578T 3H-A443654-1.11	5/54	7.75×10^{-5}	9.27×10^{-4}
LJP006 HT29 24H-A443654-1.11	7/126	7.87×10^{-5}	9.36×10^{-4}
LJP006 MCF7 3H-A443654-0.12	6/89	8.89×10^{-5}	1.04×10^{-3}
LJP006 MCF7 3H-A443654-10	4/33	1.45×10^{-4}	1.56×10^{-3}
LJP006 MCF7 3H-A443654-3.33	5/64	1.75×10^{-4}	1.82×10^{-3}
LJP006 HT29 24H-A443654-0.37	4/41	3.40×10^{-4}	3.18×10^{-3}
LJP006 SKBR3 3H-A443654-0.37	4/42	3.74×10^{-4}	3.44×10^{-3}
LJP006 MCF7 24H-A443654-0.37	6/118	4.15×10^{-4}	3.76×10^{-3}
LJP006 LNCAP 24H-A443654-3.33	6/119	4.34×10^{-4}	3.91×10^{-3}
LJP006 A549 24H-A443654-10	7/169	4.80×10^{-4}	4.24×10^{-3}
LJP006 MDAMB231 3H-A443654-0.37	4/47	5.77×10^{-4}	4.95×10^{-3}
LJP006 PC3 24H-A443654-0.37	5/83	5.88×10^{-4}	5.02×10^{-3}
LJP006 MCF7 24H-A443654-0.12	5/91	8.94×10^{-4}	7.15×10^{-3}
LJP006 MCF7 24H-A443654-3.33	5/92	9.40×10^{-4}	7.45×10^{-3}
LJP006 MCF7 24H-A443654-1.11	5/95	1.09×10^{-3}	8.35×10^{-3}
LJP006 BT20 3H-A443654-0.12	4/56	1.12×10^{-3}	8.59×10^{-3}
LJP006 A549 24H-A443654-1.11	6/150	1.46×10^{-3}	1.06×10^{-2}
LJP006 MDAMB231 3H-A443654-0.12	3/30	1.84×10^{-3}	1.28×10^{-2}
LJP006 LNCAP 24H-A443654-0.37	5/108	1.92×10^{-3}	1.33×10^{-2}
LJP006 BT20 24H-A443654-0.37	6/164	2.29×10^{-3}	1.54×10^{-2}
LJP006 BT20 24H-A443654-1.11	5/113	2.34×10^{-3}	1.56×10^{-2}
LJP006 HME1 24H-A443654-0.04	4/70	2.57×10^{-3}	1.70×10^{-2}
LJP006 SKBR3 24H-A443654-0.37	5/116	2.62×10^{-3}	1.73×10^{-2}
LJP006 BT20 24H-A443654-3.33	5/117	2.72×10^{-3}	1.77×10^{-2}
LJP006 SKBR3 24H-A443654-0.04	4/74	3.14×10^{-3}	1.99×10^{-2}
LJP006 HEPG2 24H-A443654-0.37	4/81	4.35×10^{-3}	2.57×10^{-2}
LJP006 MCF7 3H-A443654-0.37	3/42	4.83×10^{-3}	2.79×10^{-2}
LJP006 SKBR3 3H-A443654-3.33	3/43	5.16×10^{-3}	2.93×10^{-2}
LJP006 HCC515 24H-A443654-3.33	6/211	7.76×10^{-3}	4.06×10^{-2}
LJP006 LNCAP 3H-A443654-10	3/50	7.87×10^{-3}	4.09×10^{-2}
LJP006 HT29 24H-A443654-3.33	5/155	8.87×10^{-3}	4.48×10^{-2}

Table S15: A443654 significantly affects the expression of the selected 163 genes due to ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 BT20 24H-A443654-1.11	19/117	1.22×10^{-19}	1.01×10^{-15}
LJP006 SKBR3 24H-A443654-3.33	16/114	1.16×10^{-15}	1.04×10^{-12}
LJP006 HEPG2 24H-A443654-10	14/102	1.04×10^{-13}	3.99×10^{-11}
LJP006 BT20 24H-A443654-3.33	13/92	5.52×10^{-13}	1.59×10^{-10}
LJP006 HCC515 24H-A443654-1.11	15/145	9.24×10^{-13}	2.49×10^{-10}
LJP006 SKBR3 24H-A443654-1.11	13/119	1.60×10^{-11}	2.31×10^{-9}
LJP006 HA1E 24H-A443654-0.04	13/139	1.16×10^{-10}	1.18×10^{-8}
LJP006 HA1E 24H-A443654-1.11	12/114	1.54×10^{-10}	1.49×10^{-8}
LJP006 HA1E 24H-A443654-0.37	13/147	2.34×10^{-10}	2.12×10^{-8}
LJP006 MCF10A 3H-A443654-10	11/101	6.34×10^{-10}	4.83×10^{-8}
LJP006 LNCAP 24H-A443654-1.11	12/132	8.57×10^{-10}	6.19×10^{-8}
LJP006 PC3 24H-A443654-1.11	13/175	2.03×10^{-9}	1.27×10^{-7}
LJP006 LNCAP 24H-A443654-0.12	10/86	2.04×10^{-9}	1.27×10^{-7}
LJP006 HCC515 24H-A443654-10	11/114	2.34×10^{-9}	1.42×10^{-7}
LJP006 HA1E 24H-A443654-0.12	11/125	6.25×10^{-9}	3.24×10^{-7}
LJP006 MCF10A 24H-A443654-0.37	10/107	1.75×10^{-8}	7.66×10^{-7}
LJP006 HCC515 24H-A443654-3.33	10/111	2.49×10^{-8}	1.02×10^{-6}
LJP006 BT20 24H-A443654-10	9/83	2.49×10^{-8}	1.02×10^{-6}
LJP006 HEPG2 24H-A443654-3.33	10/117	4.13×10^{-8}	1.59×10^{-6}
LJP006 MDAMB231 3H-A443654-10	10/118	4.49×10^{-8}	1.71×10^{-6}
LJP006 HA1E 24H-A443654-3.33	8/64	4.92×10^{-8}	1.85×10^{-6}
LJP006 A375 24H-A443654-1.11	8/68	8.00×10^{-8}	2.78×10^{-6}
LJP006 A549 24H-A443654-10	8/70	1.01×10^{-7}	3.36×10^{-6}
LJP006 MCF10A 3H-A443654-1.11	8/72	1.26×10^{-7}	4.08×10^{-6}
LJP006 BT20 24H-A443654-0.04	9/112	3.41×10^{-7}	9.39×10^{-6}
LJP006 HME1 24H-A443654-3.33	7/57	3.94×10^{-7}	1.06×10^{-5}
LJP006 HS578T 24H-A443654-0.12	8/85	4.63×10^{-7}	1.20×10^{-5}
LJP006 HME1 3H-A443654-0.12	6/37	5.04×10^{-7}	1.29×10^{-5}
LJP006 HME1 24H-A443654-1.11	7/61	6.33×10^{-7}	1.56×10^{-5}
LJP006 HME1 24H-A443654-10	6/39	6.98×10^{-7}	1.70×10^{-5}
LJP006 LNCAP 24H-A443654-3.33	7/63	7.91×10^{-7}	1.89×10^{-5}
LJP006 PC3 24H-A443654-3.33	9/124	8.10×10^{-7}	1.93×10^{-5}
LJP006 HME1 3H-A443654-3.33	8/93	9.27×10^{-7}	2.17×10^{-5}
LJP006 HME1 3H-A443654-1.11	9/142	2.52×10^{-6}	4.99×10^{-5}
LJP006 HME1 24H-A443654-0.04	7/75	2.62×10^{-6}	5.16×10^{-5}
LJP006 MDAMB231 3H-A443654-0.37	6/49	2.80×10^{-6}	5.46×10^{-5}
LJP006 SKBR3 24H-A443654-0.04	7/77	3.13×10^{-6}	6.00×10^{-5}
LJP006 HS578T 24H-A443654-0.04	6/52	3.99×10^{-6}	7.41×10^{-5}
LJP006 HS578T 24H-A443654-0.37	8/115	4.63×10^{-6}	8.43×10^{-5}
LJP006 BT20 3H-A443654-1.11	6/54	4.99×10^{-6}	8.98×10^{-5}
LJP006 SKBR3 3H-A443654-3.33	6/56	6.19×10^{-6}	1.07×10^{-4}
LJP006 SKBR3 3H-A443654-1.11	6/56	6.19×10^{-6}	1.07×10^{-4}
LJP006 LNCAP 3H-A443654-1.11	6/58	7.62×10^{-6}	1.29×10^{-4}
LJP006 SKBR3 24H-A443654-0.37	8/126	9.11×10^{-6}	1.49×10^{-4}
LJP006 MDAMB231 24H-A443654-1.11	6/64	1.36×10^{-5}	2.10×10^{-4}
LJP006 MCF7 3H-A443654-10	6/66	1.62×10^{-5}	2.44×10^{-4}
LJP006 A549 24H-A443654-0.12	7/99	1.67×10^{-5}	2.50×10^{-4}
LJP006 A549 24H-A443654-1.11	8/137	1.68×10^{-5}	2.51×10^{-4}
LJP006 HS578T 24H-A443654-1.11	6/69	2.10×10^{-5}	3.04×10^{-4}
LJP006 HCC515 24H-A443654-0.12	7/106	2.60×10^{-5}	3.68×10^{-4}
LJP006 HCC515 24H-A443654-0.37	7/106	2.60×10^{-5}	3.67×10^{-4}
LJP006 MDAMB231 24H-A443654-10	5/47	3.93×10^{-5}	5.16×10^{-4}
LJP006 HS578T 3H-A443654-10	7/114	4.16×10^{-5}	5.44×10^{-4}

Table S15: (Continued)

LJP006 A549 24H-A443654-0.37	8/157	4.48×10^{-5}	5.77×10^{-4}
LJP006 MDAMB231 3H-A443654-1.11	6/80	4.88×10^{-5}	6.20×10^{-4}
LJP006 A375 24H-A443654-0.12	7/120	5.77×10^{-5}	7.18×10^{-4}
LJP006 SKBR3 3H-A443654-10	6/83	6.01×10^{-5}	7.42×10^{-4}
LJP006 BT20 24H-A443654-0.37	7/124	7.11×10^{-5}	8.51×10^{-4}
LJP006 HS578T 3H-A443654-3.33	7/128	8.69×10^{-5}	9.99×10^{-4}
LJP006 MDAMB231 24H-A443654-0.37	6/89	8.89×10^{-5}	1.02×10^{-3}
LJP006 SKBR3 24H-A443654-0.12	7/129	9.12×10^{-5}	1.04×10^{-3}
LJP006 PC3 24H-A443654-10	6/90	9.46×10^{-5}	1.07×10^{-3}
LJP006 BT20 3H-A443654-3.33	4/31	1.13×10^{-4}	1.24×10^{-3}
LJP006 HT29 24H-A443654-1.11	7/134	1.16×10^{-4}	1.27×10^{-3}
LJP006 HME1 24H-A443654-0.37	6/94	1.20×10^{-4}	1.31×10^{-3}
LJP006 LNCAP 24H-A443654-0.37	7/135	1.21×10^{-4}	1.32×10^{-3}
LJP006 SKBR3 3H-A443654-0.12	4/32	1.28×10^{-4}	1.39×10^{-3}
LJP006 HME1 3H-A443654-10	5/60	1.29×10^{-4}	1.39×10^{-3}
LJP006 A375 24H-A443654-3.33	4/35	1.83×10^{-4}	1.87×10^{-3}
LJP006 MCF10A 3H-A443654-0.04	4/36	2.04×10^{-4}	2.05×10^{-3}
LJP006 HS578T 3H-A443654-0.37	5/68	2.33×10^{-4}	2.30×10^{-3}
LJP006 MCF7 24H-A443654-0.12	6/108	2.58×10^{-4}	2.51×10^{-3}
LJP006 BT20 24H-A443654-0.12	6/110	2.85×10^{-4}	2.73×10^{-3}
LJP006 MCF10A 3H-A443654-3.33	6/110	2.85×10^{-4}	2.73×10^{-3}
LJP006 HT29 24H-A443654-10	5/71	2.85×10^{-4}	2.73×10^{-3}
LJP006 MDAMB231 24H-A443654-3.33	5/71	2.85×10^{-4}	2.73×10^{-3}
LJP006 HS578T 3H-A443654-1.11	6/113	3.29×10^{-4}	3.08×10^{-3}
LJP006 MCF7 24H-A443654-10	4/43	4.10×10^{-4}	3.68×10^{-3}
LJP006 HT29 24H-A443654-3.33	5/78	4.42×10^{-4}	3.93×10^{-3}
LJP006 A375 24H-A443654-10	4/44	4.48×10^{-4}	3.98×10^{-3}
LJP006 BT20 3H-A443654-10	4/45	4.88×10^{-4}	4.29×10^{-3}
LJP006 MDAMB231 3H-A443654-3.33	6/123	5.18×10^{-4}	4.51×10^{-3}
LJP006 SKBR3 3H-A443654-0.37	3/20	5.47×10^{-4}	4.71×10^{-3}
LJP006 LNCAP 3H-A443654-10	5/82	5.56×10^{-4}	4.77×10^{-3}
LJP006 MDAMB231 24H-A443654-0.04	4/48	6.26×10^{-4}	5.26×10^{-3}
LJP006 MCF7 24H-A443654-1.11	4/49	6.77×10^{-4}	5.61×10^{-3}
LJP006 LNCAP 3H-A443654-3.33	5/89	8.09×10^{-4}	6.54×10^{-3}
LJP006 MCF7 24H-A443654-0.37	5/91	8.94×10^{-4}	7.14×10^{-3}
LJP006 MCF7 3H-A443654-1.11	5/91	8.94×10^{-4}	7.13×10^{-3}
LJP006 BT20 3H-A443654-0.37	3/25	1.07×10^{-3}	8.27×10^{-3}
LJP006 BT20 3H-A443654-0.04	3/26	1.20×10^{-3}	9.09×10^{-3}
LJP006 MCF10A 3H-A443654-0.37	4/62	1.64×10^{-3}	1.18×10^{-2}
LJP006 MCF7 3H-A443654-3.33	4/66	2.07×10^{-3}	1.43×10^{-2}
LJP006 MDAMB231 24H-A443654-0.12	4/70	2.57×10^{-3}	1.71×10^{-2}
LJP006 HEPG2 24H-A443654-0.37	5/116	2.62×10^{-3}	1.74×10^{-2}
LJP006 LNCAP 3H-A443654-0.37	3/34	2.64×10^{-3}	1.75×10^{-2}
LJP006 HEPG2 24H-A443654-1.11	5/125	3.62×10^{-3}	2.27×10^{-2}
LJP006 HS578T 3H-A443654-0.12	3/39	3.92×10^{-3}	2.41×10^{-2}
LJP006 MCF7 24H-A443654-3.33	3/43	5.16×10^{-3}	2.99×10^{-2}
LJP006 HME1 3H-A443654-0.04	3/48	7.03×10^{-3}	3.82×10^{-2}
LJP006 LNCAP 24H-A443654-0.04	3/48	7.03×10^{-3}	3.82×10^{-2}
LJP006 HT29 24H-A443654-0.37	3/50	7.87×10^{-3}	4.18×10^{-2}
LJP006 LNCAP 3H-A443654-0.04	2/18	9.27×10^{-3}	4.75×10^{-2}

Table S16: CGP-60474 significantly affects the expression of the selected 163 genes due to ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP008 HT29 24H-CGP-60474-0.04	10/117	4.13×10^{-8}	1.70×10^{-6}
LJP005 MCF7 3H-CGP-60474-10	8/69	8.98×10^{-8}	3.29×10^{-6}
LJP006 MCF7 3H-CGP-60474-0.12	7/61	6.33×10^{-7}	1.69×10^{-5}
LJP008 PC3 24H-CGP-60474-0.04	10/161	8.27×10^{-7}	2.11×10^{-5}
LJP008 MCF7 24H-CGP-60474-10	8/94	1.01×10^{-6}	2.48×10^{-5}
LJP005 MCF10A 24H-CGP-60474-0.04	6/42	1.10×10^{-6}	2.67×10^{-5}
LJP006 LNCAP 3H-CGP-60474-0.37	7/68	1.34×10^{-6}	3.14×10^{-5}
LJP007 HCC515 24H-CGP-60474-0.04	9/138	1.99×10^{-6}	4.33×10^{-5}
LJP005 SKBR3 24H-CGP-60474-0.12	8/106	2.51×10^{-6}	5.28×10^{-5}
LJP007 HT29 24H-CGP-60474-0.12	9/146	3.17×10^{-6}	6.38×10^{-5}
LJP005 SKBR3 24H-CGP-60474-0.37	8/115	4.63×10^{-6}	8.82×10^{-5}
LJP009 PC3 24H-CGP-60474-0.04	10/198	5.34×10^{-6}	9.96×10^{-5}
LJP006 HCC515 24H-CGP-60474-0.37	10/225	1.63×10^{-5}	2.49×10^{-4}
LJP009 MCF7 24H-CGP-60474-0.12	8/137	1.68×10^{-5}	2.55×10^{-4}
LJP006 MCF7 3H-CGP-60474-3.33	6/67	1.77×10^{-5}	2.66×10^{-4}
LJP007 MCF7 24H-CGP-60474-0.04	8/144	2.41×10^{-5}	3.48×10^{-4}
LJP007 PC3 24H-CGP-60474-10	7/122	6.41×10^{-5}	7.96×10^{-4}
LJP008 A375 24H-CGP-60474-0.37	8/170	7.85×10^{-5}	9.36×10^{-4}
LJP009 MCF7 24H-CGP-60474-10	7/126	7.87×10^{-5}	9.37×10^{-4}
LJP005 A549 24H-CGP-60474-0.37	8/171	8.18×10^{-5}	9.72×10^{-4}
LJP009 PC3 24H-CGP-60474-1.11	9/220	8.28×10^{-5}	9.82×10^{-4}
LJP009 PC3 24H-CGP-60474-10	8/176	1.00×10^{-4}	1.15×10^{-3}
LJP009 PC3 24H-CGP-60474-0.12	8/176	1.00×10^{-4}	1.15×10^{-3}
LJP007 PC3 24H-CGP-60474-3.33	7/131	1.01×10^{-4}	1.16×10^{-3}
LJP005 MCF7 3H-CGP-60474-3.33	5/58	1.09×10^{-4}	1.24×10^{-3}
LJP005 PC3 24H-CGP-60474-1.11	8/183	1.31×10^{-4}	1.43×10^{-3}
LJP009 HT29 24H-CGP-60474-1.11	6/99	1.60×10^{-4}	1.70×10^{-3}
LJP006 A375 24H-CGP-60474-0.37	7/144	1.81×10^{-4}	1.88×10^{-3}
LJP006 MCF10A 24H-CGP-60474-10	7/148	2.14×10^{-4}	2.16×10^{-3}
LJP006 MCF7 3H-CGP-60474-10	5/67	2.17×10^{-4}	2.18×10^{-3}
LJP006 A549 24H-CGP-60474-10	7/149	2.23×10^{-4}	2.23×10^{-3}
LJP008 A549 24H-CGP-60474-0.37	6/106	2.33×10^{-4}	2.31×10^{-3}
LJP005 MCF7 3H-CGP-60474-0.37	6/106	2.33×10^{-4}	2.31×10^{-3}
LJP006 BT20 24H-CGP-60474-3.33	6/110	2.85×10^{-4}	2.74×10^{-3}
LJP008 HCC515 24H-CGP-60474-3.33	7/157	3.08×10^{-4}	2.93×10^{-3}
LJP009 A375 24H-CGP-60474-0.12	6/112	3.14×10^{-4}	2.97×10^{-3}
LJP006 LNCAP 24H-CGP-60474-10	7/159	3.32×10^{-4}	3.13×10^{-3}
LJP007 PC3 24H-CGP-60474-0.04	6/114	3.45×10^{-4}	3.21×10^{-3}
LJP005 HCC515 24H-CGP-60474-0.12	5/75	3.68×10^{-4}	3.41×10^{-3}
LJP007 MCF7 24H-CGP-60474-10	6/117	3.97×10^{-4}	3.62×10^{-3}
LJP006 SKBR3 3H-CGP-60474-0.37	4/43	4.10×10^{-4}	3.71×10^{-3}
LJP009 MCF7 24H-CGP-60474-0.04	6/119	4.34×10^{-4}	3.91×10^{-3}
LJP008 HT29 24H-CGP-60474-1.11	5/78	4.42×10^{-4}	3.97×10^{-3}
LJP006 SKBR3 24H-CGP-60474-3.33	6/120	4.54×10^{-4}	4.05×10^{-3}
LJP008 MCF7 24H-CGP-60474-1.11	6/121	4.75×10^{-4}	4.21×10^{-3}
LJP008 HEPG2 24H-CGP-60474-0.37	6/122	4.96×10^{-4}	4.36×10^{-3}
LJP005 PC3 24H-CGP-60474-0.37	7/171	5.14×10^{-4}	4.51×10^{-3}
LJP007 HCC515 24H-CGP-60474-0.12	7/179	6.75×10^{-4}	5.67×10^{-3}
LJP007 PC3 24H-CGP-60474-0.12	5/87	7.29×10^{-4}	6.05×10^{-3}
LJP009 HCC515 24H-CGP-60474-0.12	5/90	8.51×10^{-4}	6.83×10^{-3}
LJP008 MCF7 24H-CGP-60474-0.37	5/91	8.94×10^{-4}	7.15×10^{-3}
LJP006 PC3 24H-CGP-60474-1.11	6/137	9.12×10^{-4}	7.28×10^{-3}
LJP005 HS578T 3H-CGP-60474-0.04	4/53	9.12×10^{-4}	7.26×10^{-3}
LJP005 MCF10A 3H-CGP-60474-0.04	4/53	9.12×10^{-4}	7.25×10^{-3}

Table S16: (Continued)

LJP006 LNCAP 3H-CGP-60474-1.11	4/53	9.12×10^{-4}	7.24×10^{-3}
LJP006 MCF10A 24H-CGP-60474-1.11	6/138	9.47×10^{-4}	7.50×10^{-3}
LJP008 HT29 24H-CGP-60474-0.12	4/55	1.05×10^{-3}	8.15×10^{-3}
LJP006 HCC515 24H-CGP-60474-1.11	7/194	1.08×10^{-3}	8.34×10^{-3}
LJP005 HCC515 24H-CGP-60474-1.11	6/142	1.10×10^{-3}	8.44×10^{-3}
LJP007 MCF7 24H-CGP-60474-0.37	6/142	1.10×10^{-3}	8.43×10^{-3}
LJP006 HME1 3H-CGP-60474-1.11	4/57	1.20×10^{-3}	9.08×10^{-3}
LJP007 MCF7 24H-CGP-60474-1.11	6/145	1.22×10^{-3}	9.19×10^{-3}
LJP007 HT29 24H-CGP-60474-0.37	6/147	1.31×10^{-3}	9.74×10^{-3}
LJP006 SKBR3 24H-CGP-60474-1.11	5/100	1.37×10^{-3}	1.01×10^{-2}
LJP005 MCF7 3H-CGP-60474-0.12	4/60	1.45×10^{-3}	1.06×10^{-2}
LJP006 A375 24H-CGP-60474-1.11	6/156	1.78×10^{-3}	1.25×10^{-2}
LJP006 MCF10A 24H-CGP-60474-3.33	6/161	2.08×10^{-3}	1.42×10^{-2}
LJP005 HS578T 3H-CGP-60474-10	4/67	2.19×10^{-3}	1.48×10^{-2}
LJP006 PC3 24H-CGP-60474-0.37	7/221	2.27×10^{-3}	1.53×10^{-2}
LJP006 MDAMB231 3H-CGP-60474-0.37	4/68	2.31×10^{-3}	1.55×10^{-2}
LJP008 MCF7 24H-CGP-60474-0.12	5/115	2.52×10^{-3}	1.67×10^{-2}
LJP006 A375 24H-CGP-60474-10	5/118	2.82×10^{-3}	1.84×10^{-2}
LJP007 MCF7 24H-CGP-60474-0.12	5/119	2.93×10^{-3}	1.88×10^{-2}
LJP008 PC3 24H-CGP-60474-10	5/120	3.04×10^{-3}	1.94×10^{-2}
LJP005 A375 24H-CGP-60474-3.33	6/174	3.07×10^{-3}	1.96×10^{-2}
LJP006 SKBR3 3H-CGP-60474-1.11	3/36	3.11×10^{-3}	1.98×10^{-2}
LJP006 HS578T 3H-CGP-60474-3.33	4/74	3.14×10^{-3}	1.99×10^{-2}
LJP008 A375 24H-CGP-60474-0.12	6/175	3.16×10^{-3}	2.00×10^{-2}
LJP008 PC3 24H-CGP-60474-3.33	6/177	3.34×10^{-3}	2.10×10^{-2}
LJP005 HS578T 24H-CGP-60474-0.37	5/124	3.49×10^{-3}	2.17×10^{-2}
LJP008 A375 24H-CGP-60474-10	6/179	3.53×10^{-3}	2.19×10^{-2}
LJP005 MCF7 3H-CGP-60474-1.11	4/78	3.80×10^{-3}	2.32×10^{-2}
LJP006 A549 24H-CGP-60474-1.11	5/129	4.14×10^{-3}	2.48×10^{-2}
LJP006 BT20 24H-CGP-60474-0.12	5/129	4.14×10^{-3}	2.48×10^{-2}
LJP006 HME1 3H-CGP-60474-0.12	4/80	4.16×10^{-3}	2.49×10^{-2}
LJP005 MDAMB231 3H-CGP-60474-10	3/40	4.21×10^{-3}	2.51×10^{-2}
LJP006 MCF10A 3H-CGP-60474-1.11	3/40	4.21×10^{-3}	2.50×10^{-2}
LJP009 MCF7 24H-CGP-60474-3.33	5/131	4.41×10^{-3}	2.61×10^{-2}
LJP008 PC3 24H-CGP-60474-0.12	5/133	4.71×10^{-3}	2.74×10^{-2}
LJP005 PC3 24H-CGP-60474-3.33	5/134	4.86×10^{-3}	2.80×10^{-2}
LJP006 SKBR3 24H-CGP-60474-0.04	5/134	4.86×10^{-3}	2.80×10^{-2}
LJP006 HS578T 3H-CGP-60474-0.04	3/44	5.51×10^{-3}	3.09×10^{-2}
LJP009 PC3 24H-CGP-60474-0.37	6/200	6.03×10^{-3}	3.31×10^{-2}
LJP006 HME1 24H-CGP-60474-0.12	5/142	6.19×10^{-3}	3.39×10^{-2}
LJP005 HT29 24H-CGP-60474-1.11	5/143	6.37×10^{-3}	3.46×10^{-2}
LJP008 A549 24H-CGP-60474-0.04	4/91	6.56×10^{-3}	3.55×10^{-2}
LJP009 HCC515 24H-CGP-60474-0.04	4/93	7.08×10^{-3}	3.76×10^{-2}
LJP005 BT20 24H-CGP-60474-0.12	3/49	7.44×10^{-3}	3.93×10^{-2}
LJP008 A375 24H-CGP-60474-1.11	5/151	7.98×10^{-3}	4.12×10^{-2}
LJP006 HS578T 24H-CGP-60474-1.11	5/151	7.98×10^{-3}	4.12×10^{-2}
LJP008 A375 24H-CGP-60474-3.33	5/152	8.19×10^{-3}	4.22×10^{-2}
LJP005 A549 24H-CGP-60474-0.04	2/17	8.29×10^{-3}	4.26×10^{-2}
LJP007 A549 24H-CGP-60474-0.04	3/51	8.31×10^{-3}	4.25×10^{-2}
LJP008 A549 24H-CGP-60474-10	5/153	8.42×10^{-3}	4.30×10^{-2}
LJP009 PC3 24H-CGP-60474-3.33	6/217	8.84×10^{-3}	4.46×10^{-2}
LJP009 HT29 24H-CGP-60474-0.04	4/100	9.10×10^{-3}	4.58×10^{-2}
LJP007 HT29 24H-CGP-60474-10	5/156	9.11×10^{-3}	4.58×10^{-2}
LJP008 PC3 24H-CGP-60474-1.11	5/157	9.35×10^{-3}	4.66×10^{-2}
LJP006 HCC515 24H-CGP-60474-10	6/221	9.62×10^{-3}	4.78×10^{-2}
LJP009 MCF7 24H-CGP-60474-1.11	5/159	9.84×10^{-3}	4.86×10^{-2}
LJP008 PC3 24H-CGP-60474-0.37	5/160	1.01×10^{-2}	4.96×10^{-2}

Table S17: CGP-60474 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 SKBR3 24H-CGP-60474-1.11	18/106	5.03×10^{-19}	3.33×10^{-15}
LJP006 SKBR3 24H-CGP-60474-10	18/118	3.76×10^{-18}	1.56×10^{-14}
LJP007 A549 24H-CGP-60474-0.37	12/30	4.34×10^{-18}	1.60×10^{-14}
LJP005 HS578T 24H-CGP-60474-3.33	17/131	5.56×10^{-16}	5.94×10^{-13}
LJP006 SKBR3 24H-CGP-60474-0.04	16/113	1.01×10^{-15}	9.51×10^{-13}
LJP006 SKBR3 24H-CGP-60474-0.37	15/104	6.17×10^{-15}	4.44×10^{-12}
LJP009 A549 24H-CGP-60474-0.04	13/67	7.47×10^{-15}	4.95×10^{-12}
LJP006 SKBR3 24H-CGP-60474-3.33	15/130	1.82×10^{-13}	6.42×10^{-11}
LJP006 MCF10A 24H-CGP-60474-0.12	13/88	3.05×10^{-13}	9.91×10^{-11}
LJP006 HME1 3H-CGP-60474-1.11	16/165	4.30×10^{-13}	1.31×10^{-10}
LJP005 BT20 24H-CGP-60474-10	13/93	6.37×10^{-13}	1.80×10^{-10}
LJP008 HCC515 24H-CGP-60474-0.12	13/101	1.89×10^{-12}	4.30×10^{-10}
LJP007 HCC515 24H-CGP-60474-10	12/95	1.74×10^{-11}	2.46×10^{-9}
LJP006 MCF10A 3H-CGP-60474-0.37	13/127	3.68×10^{-11}	4.67×10^{-9}
LJP006 MCF10A 24H-CGP-60474-3.33	12/102	4.09×10^{-11}	5.12×10^{-9}
LJP006 BT20 24H-CGP-60474-10	13/134	7.29×10^{-11}	8.16×10^{-9}
LJP009 A549 24H-CGP-60474-0.12	10/63	8.63×10^{-11}	9.25×10^{-9}
LJP006 HEPG2 24H-CGP-60474-10	12/109	9.04×10^{-11}	9.54×10^{-9}
LJP006 BT20 24H-CGP-60474-1.11	10/65	1.19×10^{-10}	1.21×10^{-8}
LJP005 BT20 24H-CGP-60474-3.33	10/66	1.40×10^{-10}	1.38×10^{-8}
LJP005 HS578T 24H-CGP-60474-10	12/114	1.54×10^{-10}	1.50×10^{-8}
LJP005 SKBR3 24H-CGP-60474-3.33	12/114	1.54×10^{-10}	1.49×10^{-8}
LJP008 A549 24H-CGP-60474-0.12	10/67	1.63×10^{-10}	1.56×10^{-8}
LJP005 A549 24H-CGP-60474-0.12	15/211	2.06×10^{-10}	1.90×10^{-8}
LJP008 HEPG2 24H-CGP-60474-10	12/121	3.11×10^{-10}	2.69×10^{-8}
LJP006 SKBR3 24H-CGP-60474-0.12	11/103	7.84×10^{-10}	5.76×10^{-8}
LJP006 A549 24H-CGP-60474-1.11	9/57	8.18×10^{-10}	5.94×10^{-8}
LJP007 HT29 24H-CGP-60474-0.37	11/105	9.66×10^{-10}	6.82×10^{-8}
LJP008 HEPG2 24H-CGP-60474-0.12	12/134	1.02×10^{-9}	7.13×10^{-8}
LJP009 HT29 24H-CGP-60474-0.37	9/59	1.13×10^{-9}	7.77×10^{-8}
LJP007 A549 24H-CGP-60474-1.11	8/41	1.25×10^{-9}	8.45×10^{-8}
LJP005 A549 24H-CGP-60474-0.37	10/82	1.27×10^{-9}	8.54×10^{-8}
LJP009 A549 24H-CGP-60474-10	9/61	1.53×10^{-9}	9.96×10^{-8}
LJP005 BT20 24H-CGP-60474-0.12	10/84	1.61×10^{-9}	1.03×10^{-7}
LJP006 LNCAP 24H-CGP-60474-0.04	12/140	1.69×10^{-9}	1.07×10^{-7}
LJP006 MCF10A 24H-CGP-60474-10	10/86	2.04×10^{-9}	1.26×10^{-7}
LJP006 SKBR3 3H-CGP-60474-1.11	10/87	2.29×10^{-9}	1.40×10^{-7}
LJP005 SKBR3 3H-CGP-60474-1.11	10/89	2.86×10^{-9}	1.68×10^{-7}
LJP005 SKBR3 24H-CGP-60474-0.37	10/91	3.57×10^{-9}	2.03×10^{-7}
LJP006 MCF10A 24H-CGP-60474-1.11	10/91	3.57×10^{-9}	2.02×10^{-7}
LJP007 HEPG2 24H-CGP-60474-1.11	10/91	3.57×10^{-9}	2.02×10^{-7}
LJP007 HT29 24H-CGP-60474-1.11	10/91	3.57×10^{-9}	2.02×10^{-7}
LJP006 HS578T 3H-CGP-60474-10	12/150	3.73×10^{-9}	2.09×10^{-7}
LJP006 BT20 24H-CGP-60474-3.33	10/93	4.43×10^{-9}	2.43×10^{-7}
LJP007 A549 24H-CGP-60474-0.12	7/32	5.95×10^{-9}	3.13×10^{-7}
LJP005 HCC515 24H-CGP-60474-1.11	8/52	9.09×10^{-9}	4.45×10^{-7}
LJP009 A549 24H-CGP-60474-1.11	9/76	1.13×10^{-8}	5.40×10^{-7}
LJP005 MCF10A 24H-CGP-60474-1.11	10/103	1.21×10^{-8}	5.67×10^{-7}
LJP006 HME1 3H-CGP-60474-0.04	12/167	1.26×10^{-8}	5.86×10^{-7}
LJP006 SKBR3 3H-CGP-60474-0.12	9/77	1.28×10^{-8}	5.91×10^{-7}
LJP008 HEPG2 24H-CGP-60474-0.04	11/134	1.30×10^{-8}	6.00×10^{-7}
LJP005 MCF7 24H-CGP-60474-3.33	10/104	1.32×10^{-8}	6.07×10^{-7}
LJP006 HEPG2 24H-CGP-60474-1.11	10/104	1.32×10^{-8}	6.03×10^{-7}
LJP009 HCC515 24H-CGP-60474-0.04	10/108	1.91×10^{-8}	8.22×10^{-7}

Table S17: (Continued)

LJP005 HT29 24H-CGP-60474-3.33	10/108	1.91×10^{-8}	8.20×10^{-7}
LJP007 HEPG2 24H-CGP-60474-10	9/81	2.01×10^{-8}	8.49×10^{-7}
LJP006 SKBR3 3H-CGP-60474-3.33	9/82	2.24×10^{-8}	9.28×10^{-7}
LJP009 HT29 24H-CGP-60474-3.33	8/61	3.34×10^{-8}	1.32×10^{-6}
LJP006 HS578T 3H-CGP-60474-0.37	10/117	4.13×10^{-8}	1.59×10^{-6}
LJP006 MCF10A 3H-CGP-60474-10	11/151	4.51×10^{-8}	1.71×10^{-6}
LJP005 MCF7 24H-CGP-60474-0.12	9/89	4.63×10^{-8}	1.75×10^{-6}
LJP009 A549 24H-CGP-60474-3.33	9/90	5.11×10^{-8}	1.92×10^{-6}
LJP007 HEPG2 24H-CGP-60474-0.37	9/90	5.11×10^{-8}	1.90×10^{-6}
LJP005 HS578T 24H-CGP-60474-0.12	9/91	5.63×10^{-8}	2.07×10^{-6}
LJP008 PC3 24H-CGP-60474-10	10/121	5.70×10^{-8}	2.09×10^{-6}
LJP006 HME1 3H-CGP-60474-10	10/121	5.70×10^{-8}	2.08×10^{-6}
LJP005 HS578T 3H-CGP-60474-0.37	11/155	5.91×10^{-8}	2.16×10^{-6}
LJP005 BT20 3H-CGP-60474-1.11	7/45	7.34×10^{-8}	2.58×10^{-6}
LJP006 MCF10A 24H-CGP-60474-0.37	9/95	8.20×10^{-8}	2.83×10^{-6}
LJP005 A549 24H-CGP-60474-1.11	9/96	8.99×10^{-8}	3.05×10^{-6}
LJP008 PC3 24H-CGP-60474-1.11	10/128	9.74×10^{-8}	3.28×10^{-6}
LJP008 HCC515 24H-CGP-60474-10	9/97	9.84×10^{-8}	3.32×10^{-6}
LJP005 MCF7 24H-CGP-60474-0.37	9/97	9.84×10^{-8}	3.31×10^{-6}
LJP005 HA1E 24H-CGP-60474-10	8/72	1.26×10^{-7}	4.09×10^{-6}
LJP006 BT20 24H-CGP-60474-0.37	8/73	1.40×10^{-7}	4.46×10^{-6}
LJP006 BT20 24H-CGP-60474-0.04	9/104	1.80×10^{-7}	5.54×10^{-6}
LJP005 HT29 24H-CGP-60474-0.37	8/76	1.93×10^{-7}	5.91×10^{-6}
LJP008 HEPG2 24H-CGP-60474-3.33	9/105	1.96×10^{-7}	5.96×10^{-6}
LJP006 HS578T 24H-CGP-60474-0.37	9/106	2.12×10^{-7}	6.36×10^{-6}
LJP007 HT29 24H-CGP-60474-10	9/106	2.12×10^{-7}	6.36×10^{-6}
LJP008 MCF7 24H-CGP-60474-0.12	9/109	2.70×10^{-7}	7.74×10^{-6}
LJP005 MCF10A 3H-CGP-60474-10	9/109	2.70×10^{-7}	7.73×10^{-6}
LJP006 MCF10A 3H-CGP-60474-0.04	10/143	2.76×10^{-7}	7.86×10^{-6}
LJP007 HT29 24H-CGP-60474-0.04	8/80	2.89×10^{-7}	8.16×10^{-6}
LJP007 A549 24H-CGP-60474-0.04	6/34	2.97×10^{-7}	8.35×10^{-6}
LJP006 LNCAP 3H-CGP-60474-0.12	11/186	3.76×10^{-7}	1.02×10^{-5}
LJP006 HCC515 24H-CGP-60474-10	9/115	4.27×10^{-7}	1.13×10^{-5}
LJP005 MCF10A 3H-CGP-60474-1.11	9/116	4.60×10^{-7}	1.20×10^{-5}
LJP008 A549 24H-CGP-60474-1.11	8/85	4.63×10^{-7}	1.21×10^{-5}
LJP008 HEPG2 24H-CGP-60474-1.11	8/85	4.63×10^{-7}	1.21×10^{-5}
LJP008 HCC515 24H-CGP-60474-1.11	8/85	4.63×10^{-7}	1.20×10^{-5}
LJP006 HME1 3H-CGP-60474-0.12	11/192	5.16×10^{-7}	1.31×10^{-5}
LJP008 HCC515 24H-CGP-60474-3.33	9/118	5.32×10^{-7}	1.35×10^{-5}
LJP005 HA1E 24H-CGP-60474-1.11	8/87	5.54×10^{-7}	1.40×10^{-5}
LJP005 MDAMB231 3H-CGP-60474-1.11	8/87	5.54×10^{-7}	1.39×10^{-5}
LJP006 BT20 24H-CGP-60474-0.12	9/121	6.59×10^{-7}	1.62×10^{-5}
LJP009 HCC515 24H-CGP-60474-3.33	8/89	6.61×10^{-7}	1.62×10^{-5}
LJP008 PC3 24H-CGP-60474-0.37	9/122	7.06×10^{-7}	1.72×10^{-5}
LJP006 MCF7 24H-CGP-60474-0.04	7/62	7.08×10^{-7}	1.71×10^{-5}
LJP008 HA1E 24H-CGP-60474-0.37	8/90	7.20×10^{-7}	1.74×10^{-5}
LJP006 MDAMB231 24H-CGP-60474-10	8/90	7.20×10^{-7}	1.73×10^{-5}
LJP005 BT20 3H-CGP-60474-3.33	8/91	7.84×10^{-7}	1.88×10^{-5}
LJP006 HME1 24H-CGP-60474-10	8/91	7.84×10^{-7}	1.88×10^{-5}
LJP006 SKBR3 3H-CGP-60474-0.37	8/91	7.84×10^{-7}	1.88×10^{-5}
LJP008 A375 24H-CGP-60474-1.11	8/92	8.53×10^{-7}	2.02×10^{-5}
LJP009 HCC515 24H-CGP-60474-0.12	8/93	9.27×10^{-7}	2.18×10^{-5}
LJP007 A375 24H-CGP-60474-3.33	8/93	9.27×10^{-7}	2.17×10^{-5}
LJP006 HT29 24H-CGP-60474-10	8/94	1.01×10^{-6}	2.32×10^{-5}
LJP005 MCF7 24H-CGP-60474-1.11	8/96	1.18×10^{-6}	2.67×10^{-5}
LJP006 LNCAP 3H-CGP-60474-1.11	8/97	1.28×10^{-6}	2.85×10^{-5}
LJP006 HA1E 24H-CGP-60474-3.33	7/68	1.34×10^{-6}	2.95×10^{-5}

Table S17: (Continued)

LJP006 MDAMB231 3H-CGP-60474-3.33	9/132	1.37×10^{-6}	3.01×10^{-5}
LJP007 MCF7 24H-CGP-60474-0.12	9/133	1.46×10^{-6}	3.19×10^{-5}
LJP005 HS578T 3H-CGP-60474-3.33	10/173	1.59×10^{-6}	3.43×10^{-5}
LJP007 HA1E 24H-CGP-60474-10	8/101	1.74×10^{-6}	3.68×10^{-5}
LJP009 A375 24H-CGP-60474-0.04	8/102	1.88×10^{-6}	3.92×10^{-5}
LJP006 HME1 24H-CGP-60474-1.11	7/72	1.98×10^{-6}	4.09×10^{-5}
LJP008 A375 24H-CGP-60474-0.04	9/138	1.99×10^{-6}	4.09×10^{-5}
LJP005 PC3 24H-CGP-60474-0.12	8/103	2.02×10^{-6}	4.16×10^{-5}
LJP007 A375 24H-CGP-60474-0.04	8/105	2.34×10^{-6}	4.72×10^{-5}
LJP005 HA1E 24H-CGP-60474-3.33	7/74	2.39×10^{-6}	4.79×10^{-5}
LJP005 HT29 24H-CGP-60474-1.11	8/106	2.51×10^{-6}	4.99×10^{-5}
LJP006 HCC515 24H-CGP-60474-0.37	8/106	2.51×10^{-6}	4.99×10^{-5}
LJP005 MCF7 3H-CGP-60474-10	8/107	2.69×10^{-6}	5.30×10^{-5}
LJP008 HA1E 24H-CGP-60474-3.33	7/76	2.86×10^{-6}	5.57×10^{-5}
LJP009 A549 24H-CGP-60474-0.37	7/76	2.86×10^{-6}	5.57×10^{-5}
LJP005 HCC515 24H-CGP-60474-0.37	8/108	2.89×10^{-6}	5.60×10^{-5}
LJP005 MCF10A 24H-CGP-60474-0.12	7/77	3.13×10^{-6}	6.01×10^{-5}
LJP008 A549 24H-CGP-60474-10	8/110	3.32×10^{-6}	6.33×10^{-5}
LJP005 SKBR3 3H-CGP-60474-10	7/78	3.41×10^{-6}	6.48×10^{-5}
LJP006 HS578T 24H-CGP-60474-10	7/78	3.41×10^{-6}	6.46×10^{-5}
LJP006 MCF7 24H-CGP-60474-3.33	5/29	3.43×10^{-6}	6.46×10^{-5}
LJP007 MCF7 24H-CGP-60474-0.04	10/189	3.53×10^{-6}	6.65×10^{-5}
LJP005 MCF7 3H-CGP-60474-1.11	8/111	3.55×10^{-6}	6.68×10^{-5}
LJP006 LNCAP 24H-CGP-60474-3.33	8/111	3.55×10^{-6}	6.67×10^{-5}
LJP006 HS578T 24H-CGP-60474-0.04	7/79	3.72×10^{-6}	6.95×10^{-5}
LJP009 HEPG2 24H-CGP-60474-1.11	8/112	3.80×10^{-6}	7.08×10^{-5}
LJP008 A549 24H-CGP-60474-0.37	7/80	4.05×10^{-6}	7.50×10^{-5}
LJP006 MCF10A 3H-CGP-60474-0.12	9/151	4.18×10^{-6}	7.69×10^{-5}
LJP006 HS578T 3H-CGP-60474-0.04	8/115	4.63×10^{-6}	8.43×10^{-5}
LJP006 MCF10A 3H-CGP-60474-1.11	8/115	4.63×10^{-6}	8.42×10^{-5}
LJP005 A549 24H-CGP-60474-3.33	8/116	4.94×10^{-6}	8.93×10^{-5}
LJP006 HS578T 24H-CGP-60474-0.12	7/83	5.18×10^{-6}	9.27×10^{-5}
LJP009 HEPG2 24H-CGP-60474-0.12	8/117	5.26×10^{-6}	9.39×10^{-5}
LJP005 HA1E 24H-CGP-60474-0.04	8/118	5.61×10^{-6}	9.93×10^{-5}
LJP008 PC3 24H-CGP-60474-0.12	8/118	5.61×10^{-6}	9.92×10^{-5}
LJP005 SKBR3 3H-CGP-60474-0.37	7/87	7.10×10^{-6}	1.21×10^{-4}
LJP006 HCC515 24H-CGP-60474-1.11	7/87	7.10×10^{-6}	1.21×10^{-4}
LJP007 HT29 24H-CGP-60474-3.33	7/87	7.10×10^{-6}	1.20×10^{-4}
LJP006 HME1 3H-CGP-60474-0.37	9/162	7.41×10^{-6}	1.26×10^{-4}
LJP005 HEPG2 24H-CGP-60474-1.11	6/59	8.42×10^{-6}	1.40×10^{-4}
LJP005 MDAMB231 3H-CGP-60474-3.33	8/125	8.59×10^{-6}	1.42×10^{-4}
LJP008 HCC515 24H-CGP-60474-0.04	7/91	9.57×10^{-6}	1.56×10^{-4}
LJP006 HME1 24H-CGP-60474-0.12	7/91	9.57×10^{-6}	1.56×10^{-4}
LJP006 HS578T 3H-CGP-60474-1.11	8/127	9.66×10^{-6}	1.57×10^{-4}
LJP006 MDAMB231 24H-CGP-60474-3.33	7/92	1.03×10^{-5}	1.66×10^{-4}
LJP007 HCC515 24H-CGP-60474-0.37	7/92	1.03×10^{-5}	1.65×10^{-4}
LJP007 HT29 24H-CGP-60474-0.12	7/92	1.03×10^{-5}	1.65×10^{-4}
LJP007 HEPG2 24H-CGP-60474-0.04	6/62	1.13×10^{-5}	1.79×10^{-4}
LJP008 MCF7 24H-CGP-60474-0.04	7/94	1.19×10^{-5}	1.88×10^{-4}
LJP006 BT20 3H-CGP-60474-0.04	5/37	1.19×10^{-5}	1.88×10^{-4}
LJP009 HEPG2 24H-CGP-60474-0.04	8/133	1.35×10^{-5}	2.11×10^{-4}
LJP005 HEPG2 24H-CGP-60474-3.33	6/64	1.36×10^{-5}	2.11×10^{-4}
LJP008 HT29 24H-CGP-60474-0.37	6/64	1.36×10^{-5}	2.11×10^{-4}
LJP009 HEPG2 24H-CGP-60474-3.33	7/97	1.46×10^{-5}	2.24×10^{-4}
LJP005 MCF10A 24H-CGP-60474-0.04	6/65	1.48×10^{-5}	2.27×10^{-4}
LJP009 HT29 24H-CGP-60474-1.11	6/66	1.62×10^{-5}	2.45×10^{-4}
LJP006 HS578T 3H-CGP-60474-3.33	7/99	1.67×10^{-5}	2.49×10^{-4}

Table S17: (Continued)

LJP009 HT29 24H-CGP-60474-0.04	6/67	1.77×10^{-5}	2.62×10^{-4}
LJP006 A549 24H-CGP-60474-0.37	6/67	1.77×10^{-5}	2.62×10^{-4}
LJP006 MDAMB231 3H-CGP-60474-1.11	8/138	1.77×10^{-5}	2.61×10^{-4}
LJP007 MCF7 24H-CGP-60474-3.33	7/101	1.90×10^{-5}	2.79×10^{-4}
LJP006 HME1 3H-CGP-60474-3.33	8/141	2.07×10^{-5}	3.01×10^{-4}
LJP006 MDAMB231 3H-CGP-60474-0.04	6/69	2.10×10^{-5}	3.04×10^{-4}
LJP005 HS578T 24H-CGP-60474-0.37	7/103	2.16×10^{-5}	3.13×10^{-4}
LJP009 MCF7 24H-CGP-60474-0.37	8/142	2.18×10^{-5}	3.15×10^{-4}
LJP005 MCF10A 3H-CGP-60474-0.12	7/104	2.30×10^{-5}	3.28×10^{-4}
LJP006 MDAMB231 3H-CGP-60474-0.37	7/105	2.45×10^{-5}	3.49×10^{-4}
LJP008 PC3 24H-CGP-60474-3.33	8/145	2.54×10^{-5}	3.59×10^{-4}
LJP007 HA1E 24H-CGP-60474-1.11	6/72	2.68×10^{-5}	3.76×10^{-4}
LJP006 HS578T 3H-CGP-60474-0.12	7/107	2.76×10^{-5}	3.88×10^{-4}
LJP006 HME1 24H-CGP-60474-3.33	6/73	2.90×10^{-5}	4.01×10^{-4}
LJP008 A549 24H-CGP-60474-3.33	6/74	3.13×10^{-5}	4.31×10^{-4}
LJP006 LNCAP 3H-CGP-60474-3.33	7/110	3.31×10^{-5}	4.51×10^{-4}
LJP007 A375 24H-CGP-60474-10	7/110	3.31×10^{-5}	4.50×10^{-4}
LJP006 MCF7 24H-CGP-60474-10	6/75	3.38×10^{-5}	4.58×10^{-4}
LJP006 HA1E 24H-CGP-60474-0.37	6/76	3.65×10^{-5}	4.88×10^{-4}
LJP007 PC3 24H-CGP-60474-0.04	6/77	3.93×10^{-5}	5.18×10^{-4}
LJP006 A549 24H-CGP-60474-10	6/79	4.54×10^{-5}	5.85×10^{-4}
LJP005 MCF10A 24H-CGP-60474-0.37	6/80	4.88×10^{-5}	6.21×10^{-4}
LJP006 MCF7 24H-CGP-60474-1.11	6/80	4.88×10^{-5}	6.20×10^{-4}
LJP008 A375 24H-CGP-60474-0.37	6/81	5.24×10^{-5}	6.62×10^{-4}
LJP008 A375 24H-CGP-60474-0.12	6/82	5.61×10^{-5}	7.01×10^{-4}
LJP005 HEPG2 24H-CGP-60474-0.37	6/82	5.61×10^{-5}	7.01×10^{-4}
LJP005 MDAMB231 3H-CGP-60474-0.12	6/82	5.61×10^{-5}	7.00×10^{-4}
LJP007 HCC515 24H-CGP-60474-1.11	6/82	5.61×10^{-5}	6.98×10^{-4}
LJP006 MCF7 3H-CGP-60474-3.33	7/120	5.77×10^{-5}	7.17×10^{-4}
LJP007 HCC515 24H-CGP-60474-3.33	6/83	6.01×10^{-5}	7.41×10^{-4}
LJP009 A375 24H-CGP-60474-0.37	7/121	6.09×10^{-5}	7.50×10^{-4}
LJP005 MDAMB231 24H-CGP-60474-0.12	4/27	6.45×10^{-5}	7.86×10^{-4}
LJP005 MDAMB231 3H-CGP-60474-10	7/123	6.75×10^{-5}	8.17×10^{-4}
LJP008 HT29 24H-CGP-60474-3.33	6/85	6.87×10^{-5}	8.29×10^{-4}
LJP006 MDAMB231 3H-CGP-60474-0.12	7/125	7.48×10^{-5}	8.86×10^{-4}
LJP006 HS578T 24H-CGP-60474-1.11	6/87	7.83×10^{-5}	9.18×10^{-4}
LJP007 HCC515 24H-CGP-60474-0.12	6/87	7.83×10^{-5}	9.17×10^{-4}
LJP005 MDAMB231 3H-CGP-60474-0.37	7/129	9.12×10^{-5}	1.04×10^{-3}
LJP006 LNCAP 24H-CGP-60474-1.11	7/129	9.12×10^{-5}	1.04×10^{-3}
LJP005 HS578T 3H-CGP-60474-0.04	5/56	9.23×10^{-5}	1.05×10^{-3}
LJP006 LNCAP 24H-CGP-60474-0.12	7/130	9.58×10^{-5}	1.08×10^{-3}
LJP006 PC3 24H-CGP-60474-10	5/57	1.01×10^{-4}	1.13×10^{-3}
LJP005 PC3 24H-CGP-60474-3.33	6/92	1.07×10^{-4}	1.19×10^{-3}
LJP006 HA1E 24H-CGP-60474-10	5/60	1.29×10^{-4}	1.39×10^{-3}
LJP009 HCC515 24H-CGP-60474-10	6/96	1.35×10^{-4}	1.46×10^{-3}
LJP005 HA1E 24H-CGP-60474-0.12	6/96	1.35×10^{-4}	1.46×10^{-3}
LJP007 HCC515 24H-CGP-60474-0.04	6/96	1.35×10^{-4}	1.45×10^{-3}
LJP008 HA1E 24H-CGP-60474-1.11	6/97	1.43×10^{-4}	1.53×10^{-3}
LJP005 SKBR3 24H-CGP-60474-0.12	6/97	1.43×10^{-4}	1.53×10^{-3}
LJP006 HME1 24H-CGP-60474-0.37	6/97	1.43×10^{-4}	1.53×10^{-3}
LJP007 A549 24H-CGP-60474-3.33	4/33	1.45×10^{-4}	1.53×10^{-3}
LJP005 BT20 3H-CGP-60474-0.04	4/34	1.63×10^{-4}	1.70×10^{-3}
LJP007 HA1E 24H-CGP-60474-0.37	6/100	1.69×10^{-4}	1.75×10^{-3}
LJP006 LNCAP 24H-CGP-60474-0.37	7/144	1.81×10^{-4}	1.86×10^{-3}
LJP006 BT20 3H-CGP-60474-0.12	4/35	1.83×10^{-4}	1.87×10^{-3}
LJP009 HA1E 24H-CGP-60474-3.33	6/107	2.45×10^{-4}	2.41×10^{-3}
LJP006 MCF10A 24H-CGP-60474-0.04	5/69	2.49×10^{-4}	2.45×10^{-3}

Table S17: (Continued)

LJP006 A375 24H-CGP-60474-10	6/108	2.58×10^{-4}	2.51×10^{-3}
LJP005 MCF10A 3H-CGP-60474-0.37	7/154	2.73×10^{-4}	2.65×10^{-3}
LJP008 MCF7 24H-CGP-60474-10	5/71	2.85×10^{-4}	2.73×10^{-3}
LJP009 A375 24H-CGP-60474-1.11	6/112	3.14×10^{-4}	2.96×10^{-3}
LJP005 MCF10A 3H-CGP-60474-3.33	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP006 HEPG2 24H-CGP-60474-0.37	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP006 PC3 24H-CGP-60474-3.33	4/41	3.40×10^{-4}	3.16×10^{-3}
LJP009 HA1E 24H-CGP-60474-1.11	5/76	3.92×10^{-4}	3.57×10^{-3}
LJP006 HA1E 24H-CGP-60474-0.04	5/76	3.92×10^{-4}	3.57×10^{-3}
LJP008 HEPG2 24H-CGP-60474-0.37	6/118	4.15×10^{-4}	3.73×10^{-3}
LJP006 LNCAP 3H-CGP-60474-0.37	6/119	4.34×10^{-4}	3.88×10^{-3}
LJP006 SKBR3 3H-CGP-60474-10	6/119	4.34×10^{-4}	3.88×10^{-3}
LJP005 HCC515 24H-CGP-60474-0.12	5/78	4.42×10^{-4}	3.94×10^{-3}
LJP006 MCF7 3H-CGP-60474-0.37	7/167	4.46×10^{-4}	3.97×10^{-3}
LJP006 HT29 24H-CGP-60474-1.11	5/80	4.97×10^{-4}	4.34×10^{-3}
LJP006 MDAMB231 3H-CGP-60474-10	7/170	4.97×10^{-4}	4.34×10^{-3}
LJP005 HS578T 3H-CGP-60474-0.12	5/81	5.26×10^{-4}	4.58×10^{-3}
LJP007 A375 24H-CGP-60474-1.11	5/81	5.26×10^{-4}	4.57×10^{-3}
LJP005 A375 24H-CGP-60474-1.11	5/82	5.56×10^{-4}	4.78×10^{-3}
LJP006 MCF7 3H-CGP-60474-1.11	6/125	5.64×10^{-4}	4.83×10^{-3}
LJP006 BT20 3H-CGP-60474-10	4/48	6.26×10^{-4}	5.26×10^{-3}
LJP005 HA1E 24H-CGP-60474-0.37	5/86	6.92×10^{-4}	5.73×10^{-3}
LJP008 A375 24H-CGP-60474-10	5/88	7.68×10^{-4}	6.27×10^{-3}
LJP008 A549 24H-CGP-60474-0.04	6/133	7.82×10^{-4}	6.37×10^{-3}
LJP009 MCF7 24H-CGP-60474-10	6/134	8.13×10^{-4}	6.57×10^{-3}
LJP005 MCF7 3H-CGP-60474-3.33	5/90	8.51×10^{-4}	6.80×10^{-3}
LJP009 MCF7 24H-CGP-60474-1.11	6/136	8.78×10^{-4}	7.01×10^{-3}
LJP005 SKBR3 3H-CGP-60474-0.12	4/54	9.79×10^{-4}	7.70×10^{-3}
LJP006 LNCAP 3H-CGP-60474-0.04	5/93	9.86×10^{-4}	7.71×10^{-3}
LJP006 BT20 3H-CGP-60474-3.33	4/56	1.12×10^{-3}	8.61×10^{-3}
LJP006 HA1E 24H-CGP-60474-0.12	5/97	1.19×10^{-3}	9.08×10^{-3}
LJP006 HT29 24H-CGP-60474-0.37	5/97	1.19×10^{-3}	9.07×10^{-3}
LJP005 A375 24H-CGP-60474-0.04	4/57	1.20×10^{-3}	9.12×10^{-3}
LJP005 BT20 3H-CGP-60474-10	4/57	1.20×10^{-3}	9.11×10^{-3}
LJP008 PC3 24H-CGP-60474-0.04	6/145	1.22×10^{-3}	9.23×10^{-3}
LJP007 HEPG2 24H-CGP-60474-0.12	4/60	1.45×10^{-3}	1.07×10^{-2}
LJP007 MCF7 24H-CGP-60474-10	5/103	1.56×10^{-3}	1.13×10^{-2}
LJP005 MCF7 3H-CGP-60474-0.37	6/152	1.56×10^{-3}	1.13×10^{-2}
LJP006 HA1E 24H-CGP-60474-1.11	4/62	1.64×10^{-3}	1.18×10^{-2}
LJP007 A549 24H-CGP-60474-10	3/29	1.66×10^{-3}	1.19×10^{-2}
LJP005 A549 24H-CGP-60474-0.04	4/64	1.85×10^{-3}	1.30×10^{-2}
LJP006 A375 24H-CGP-60474-1.11	4/64	1.85×10^{-3}	1.30×10^{-2}
LJP006 MCF7 3H-CGP-60474-0.04	4/64	1.85×10^{-3}	1.30×10^{-2}
LJP009 MCF7 24H-CGP-60474-0.12	6/158	1.89×10^{-3}	1.33×10^{-2}
LJP006 PC3 24H-CGP-60474-1.11	4/66	2.07×10^{-3}	1.43×10^{-2}
LJP009 PC3 24H-CGP-60474-10	5/110	2.08×10^{-3}	1.43×10^{-2}
LJP005 HS578T 24H-CGP-60474-0.04	4/67	2.19×10^{-3}	1.50×10^{-2}
LJP007 HA1E 24H-CGP-60474-3.33	4/70	2.57×10^{-3}	1.71×10^{-2}
LJP008 A375 24H-CGP-60474-3.33	4/72	2.84×10^{-3}	1.87×10^{-2}
LJP006 MCF7 3H-CGP-60474-10	5/119	2.93×10^{-3}	1.90×10^{-2}
LJP006 LNCAP 24H-CGP-60474-10	5/122	3.26×10^{-3}	2.08×10^{-2}
LJP006 MCF7 24H-CGP-60474-0.37	4/76	3.46×10^{-3}	2.18×10^{-2}
LJP005 HS578T 3H-CGP-60474-10	5/125	3.62×10^{-3}	2.27×10^{-2}
LJP005 HT29 24H-CGP-60474-0.12	4/78	3.80×10^{-3}	2.35×10^{-2}
LJP008 HT29 24H-CGP-60474-0.04	4/79	3.98×10^{-3}	2.43×10^{-2}
LJP006 MDAMB231 24H-CGP-60474-0.12	4/79	3.98×10^{-3}	2.43×10^{-2}
LJP007 HA1E 24H-CGP-60474-0.12	5/138	5.49×10^{-3}	3.17×10^{-2}

Table S17: (Continued)

LJP005 MDAMB231 24H-CGP-60474-0.37	3/44	5.51×10^{-3}	3.16×10^{-2}
LJP007 PC3 24H-CGP-60474-3.33	4/87	5.60×10^{-3}	3.20×10^{-2}
LJP007 MCF7 24H-CGP-60474-1.11	5/139	5.66×10^{-3}	3.22×10^{-2}
LJP005 A375 24H-CGP-60474-3.33	4/88	5.83×10^{-3}	3.31×10^{-2}
LJP007 PC3 24H-CGP-60474-10	4/88	5.83×10^{-3}	3.31×10^{-2}
LJP006 BT20 3H-CGP-60474-0.37	3/49	7.44×10^{-3}	3.99×10^{-2}
LJP007 MCF7 24H-CGP-60474-0.37	5/149	7.55×10^{-3}	4.04×10^{-2}
LJP009 MCF7 24H-CGP-60474-3.33	5/151	7.98×10^{-3}	4.23×10^{-2}
LJP008 MCF7 24H-CGP-60474-1.11	4/98	8.49×10^{-3}	4.44×10^{-2}
LJP005 SKBR3 3H-CGP-60474-3.33	4/98	8.49×10^{-3}	4.43×10^{-2}
LJP005 HS578T 3H-CGP-60474-1.11	5/159	9.84×10^{-3}	5.00×10^{-2}

Table S18: Alvocidib significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 MCF7 3H-alvocidib-10	9/87	3.79×10^{-8}	1.57×10^{-6}
LJP006 SKBR3 24H-alvocidib-1.11	9/116	4.60×10^{-7}	1.29×10^{-5}
LJP006 HME1 3H-alvocidib-0.12	7/82	4.78×10^{-6}	9.07×10^{-5}
LJP006 HS578T 3H-alvocidib-0.37	6/61	1.02×10^{-5}	1.69×10^{-4}
LJP006 BT20 24H-alvocidib-3.33	7/108	2.94×10^{-5}	4.11×10^{-4}
LJP006 HME1 3H-alvocidib-1.11	5/56	9.23×10^{-5}	1.07×10^{-3}
LJP006 BT20 24H-alvocidib-0.04	5/57	1.01×10^{-4}	1.15×10^{-3}
LJP006 SKBR3 3H-alvocidib-0.37	5/57	1.01×10^{-4}	1.15×10^{-3}
LJP006 BT20 24H-alvocidib-1.11	6/98	1.52×10^{-4}	1.62×10^{-3}
LJP006 MCF10A 24H-alvocidib-0.04	6/106	2.33×10^{-4}	2.31×10^{-3}
LJP006 MCF10A 24H-alvocidib-10	7/150	2.33×10^{-4}	2.31×10^{-3}
LJP006 SKBR3 3H-alvocidib-0.12	5/71	2.85×10^{-4}	2.74×10^{-3}
LJP006 BT20 24H-alvocidib-10	5/78	4.42×10^{-4}	3.96×10^{-3}
LJP006 LNCAP 24H-alvocidib-3.33	5/80	4.97×10^{-4}	4.36×10^{-3}
LJP006 HS578T 3H-alvocidib-0.12	5/85	6.56×10^{-4}	5.52×10^{-3}
LJP006 SKBR3 24H-alvocidib-3.33	6/129	6.66×10^{-4}	5.60×10^{-3}
LJP006 HME1 3H-alvocidib-0.37	4/51	7.89×10^{-4}	6.42×10^{-3}
LJP006 HEPG2 24H-alvocidib-10	5/91	8.94×10^{-4}	7.15×10^{-3}
LJP006 LNCAP 24H-alvocidib-0.04	6/140	1.02×10^{-3}	7.97×10^{-3}
LJP006 MCF10A 24H-alvocidib-3.33	6/146	1.27×10^{-3}	9.48×10^{-3}
LJP006 MCF7 3H-alvocidib-0.37	4/60	1.45×10^{-3}	1.06×10^{-2}
LJP006 PC3 24H-alvocidib-10	6/152	1.56×10^{-3}	1.12×10^{-2}
LJP006 HS578T 3H-alvocidib-10	4/63	1.74×10^{-3}	1.23×10^{-2}
LJP006 LNCAP 3H-alvocidib-0.37	4/63	1.74×10^{-3}	1.23×10^{-2}
LJP006 BT20 24H-alvocidib-0.12	5/106	1.77×10^{-3}	1.24×10^{-2}
LJP006 HS578T 3H-alvocidib-0.04	4/64	1.85×10^{-3}	1.28×10^{-2}
LJP006 MCF7 3H-alvocidib-3.33	4/67	2.19×10^{-3}	1.48×10^{-2}
LJP006 MDAMB231 3H-alvocidib-1.11	4/67	2.19×10^{-3}	1.48×10^{-2}
LJP006 SKBR3 3H-alvocidib-1.11	4/67	2.19×10^{-3}	1.48×10^{-2}
LJP006 HCC515 24H-alvocidib-10	7/221	2.27×10^{-3}	1.53×10^{-2}
LJP006 MCF7 3H-alvocidib-0.04	3/37	3.37×10^{-3}	2.11×10^{-2}
LJP006 A549 24H-alvocidib-10	6/180	3.62×10^{-3}	2.24×10^{-2}
LJP006 MCF7 24H-alvocidib-0.04	3/47	6.63×10^{-3}	3.57×10^{-2}
LJP006 MCF7 3H-alvocidib-0.12	3/47	6.63×10^{-3}	3.56×10^{-2}
LJP006 MCF10A 24H-alvocidib-0.12	5/146	6.94×10^{-3}	3.71×10^{-2}
LJP006 SKBR3 24H-alvocidib-0.37	4/93	7.08×10^{-3}	3.76×10^{-2}
LJP006 HA1E 24H-alvocidib-1.11	6/218	9.03×10^{-3}	4.56×10^{-2}
LJP006 MCF10A 3H-alvocidib-3.33	3/54	9.73×10^{-3}	4.82×10^{-2}

Table S19: Alvocidib significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 SKBR3 24H-alvocidib-0.12	18/111	1.20×10^{-18}	6.61×10^{-15}
LJP006 MCF10A 24H-alvocidib-3.33	12/92	1.18×10^{-11}	1.78×10^{-9}
LJP006 SKBR3 24H-alvocidib-0.37	12/92	1.18×10^{-11}	1.78×10^{-9}
LJP006 SKBR3 24H-alvocidib-10	12/95	1.74×10^{-11}	2.47×10^{-9}
LJP006 BT20 24H-alvocidib-0.12	13/134	7.29×10^{-11}	8.13×10^{-9}
LJP006 HME1 3H-alvocidib-1.11	14/166	8.78×10^{-11}	9.35×10^{-9}
LJP006 MCF10A 24H-alvocidib-0.12	11/89	1.58×10^{-10}	1.52×10^{-8}
LJP006 SKBR3 24H-alvocidib-3.33	12/115	1.71×10^{-10}	1.61×10^{-8}
LJP006 HME1 3H-alvocidib-3.33	14/194	6.96×10^{-10}	5.20×10^{-8}
LJP006 MCF10A 3H-alvocidib-0.37	12/143	2.16×10^{-9}	1.33×10^{-7}
LJP006 HCC515 24H-alvocidib-10	11/118	3.39×10^{-9}	1.94×10^{-7}
LJP006 HME1 3H-alvocidib-0.37	13/194	7.11×10^{-9}	3.61×10^{-7}
LJP006 HS578T 3H-alvocidib-10	11/143	2.57×10^{-8}	1.04×10^{-6}
LJP006 HA1E 24H-alvocidib-0.04	12/188	4.72×10^{-8}	1.78×10^{-6}
LJP006 SKBR3 24H-alvocidib-1.11	9/93	6.81×10^{-8}	2.41×10^{-6}
LJP006 LNCAP 3H-alvocidib-10	10/131	1.21×10^{-7}	3.94×10^{-6}
LJP006 SKBR3 3H-alvocidib-1.11	9/104	1.80×10^{-7}	5.53×10^{-6}
LJP006 MCF10A 3H-alvocidib-10	10/146	3.35×10^{-7}	9.25×10^{-6}
LJP006 MCF7 24H-alvocidib-3.33	6/35	3.57×10^{-7}	9.71×10^{-6}
LJP006 HME1 3H-alvocidib-10	9/114	3.97×10^{-7}	1.06×10^{-5}
LJP006 BT20 24H-alvocidib-3.33	9/115	4.27×10^{-7}	1.13×10^{-5}
LJP006 SKBR3 3H-alvocidib-0.37	8/86	5.07×10^{-7}	1.29×10^{-5}
LJP006 A549 24H-alvocidib-10	8/94	1.01×10^{-6}	2.33×10^{-5}
LJP006 BT20 24H-alvocidib-10	8/94	1.01×10^{-6}	2.32×10^{-5}
LJP006 SKBR3 3H-alvocidib-10	8/97	1.28×10^{-6}	2.85×10^{-5}
LJP006 HME1 24H-alvocidib-0.12	8/99	1.50×10^{-6}	3.23×10^{-5}
LJP006 LNCAP 24H-alvocidib-10	8/101	1.74×10^{-6}	3.68×10^{-5}
LJP006 MCF10A 24H-alvocidib-10	7/71	1.80×10^{-6}	3.77×10^{-5}
LJP006 HA1E 24H-alvocidib-10	7/72	1.98×10^{-6}	4.09×10^{-5}
LJP006 MCF7 3H-alvocidib-1.11	7/74	2.39×10^{-6}	4.78×10^{-5}
LJP006 HME1 3H-alvocidib-0.12	9/146	3.17×10^{-6}	6.04×10^{-5}
LJP006 MDAMB231 24H-alvocidib-1.11	7/82	4.78×10^{-6}	8.68×10^{-5}
LJP006 MCF7 24H-alvocidib-0.37	5/31	4.84×10^{-6}	8.76×10^{-5}
LJP006 LNCAP 24H-alvocidib-1.11	8/116	4.94×10^{-6}	8.92×10^{-5}
LJP006 HA1E 24H-alvocidib-0.12	7/83	5.18×10^{-6}	9.29×10^{-5}
LJP006 HS578T 24H-alvocidib-3.33	7/83	5.18×10^{-6}	9.28×10^{-5}
LJP006 MCF10A 3H-alvocidib-0.12	8/120	6.35×10^{-6}	1.10×10^{-4}
LJP006 MCF10A 3H-alvocidib-1.11	8/122	7.18×10^{-6}	1.22×10^{-4}
LJP006 LNCAP 24H-alvocidib-3.33	6/58	7.62×10^{-6}	1.29×10^{-4}
LJP006 HA1E 24H-alvocidib-0.37	7/89	8.26×10^{-6}	1.37×10^{-4}
LJP006 MDAMB231 24H-alvocidib-10	6/61	1.02×10^{-5}	1.65×10^{-4}
LJP006 SKBR3 24H-alvocidib-0.04	7/99	1.67×10^{-5}	2.49×10^{-4}
LJP006 HT29 24H-alvocidib-10	6/67	1.77×10^{-5}	2.61×10^{-4}
LJP006 HME1 24H-alvocidib-0.37	7/103	2.16×10^{-5}	3.12×10^{-4}
LJP006 HS578T 3H-alvocidib-1.11	7/105	2.45×10^{-5}	3.49×10^{-4}
LJP006 HEPG2 24H-alvocidib-10	6/75	3.38×10^{-5}	4.58×10^{-4}
LJP006 LNCAP 3H-alvocidib-0.37	7/111	3.50×10^{-5}	4.73×10^{-4}
LJP006 LNCAP 24H-alvocidib-0.12	7/112	3.71×10^{-5}	4.94×10^{-4}
LJP006 MDAMB231 3H-alvocidib-3.33	7/114	4.16×10^{-5}	5.44×10^{-4}
LJP006 HS578T 3H-alvocidib-0.12	8/156	4.28×10^{-5}	5.56×10^{-4}
LJP006 MDAMB231 3H-alvocidib-0.12	8/156	4.28×10^{-5}	5.56×10^{-4}
LJP006 MDAMB231 3H-alvocidib-0.37	7/120	5.77×10^{-5}	7.17×10^{-4}
LJP006 MCF10A 3H-alvocidib-0.04	7/123	6.75×10^{-5}	8.16×10^{-4}
LJP006 BT20 24H-alvocidib-0.37	7/124	7.11×10^{-5}	8.51×10^{-4}

Table S19: (Continued)

LJP006 HA1E 24H-alvocidib-3.33	6/86	7.33×10^{-5}	8.75×10^{-4}
LJP006 MCF7 3H-alvocidib-3.33	7/125	7.48×10^{-5}	8.86×10^{-4}
LJP006 HS578T 24H-alvocidib-0.37	6/89	8.89×10^{-5}	1.02×10^{-3}
LJP006 MCF7 24H-alvocidib-10	5/57	1.01×10^{-4}	1.13×10^{-3}
LJP006 HS578T 24H-alvocidib-1.11	6/91	1.01×10^{-4}	1.12×10^{-3}
LJP006 MCF7 3H-alvocidib-10	7/132	1.05×10^{-4}	1.18×10^{-3}
LJP006 BT20 3H-alvocidib-0.37	5/62	1.50×10^{-4}	1.59×10^{-3}
LJP006 LNCAP 24H-alvocidib-0.37	7/140	1.52×10^{-4}	1.60×10^{-3}
LJP006 MCF10A 3H-alvocidib-3.33	7/143	1.74×10^{-4}	1.79×10^{-3}
LJP006 HS578T 3H-alvocidib-3.33	7/148	2.14×10^{-4}	2.15×10^{-3}
LJP006 MDAMB231 3H-alvocidib-1.11	7/149	2.23×10^{-4}	2.23×10^{-3}
LJP006 MCF7 3H-alvocidib-0.37	6/108	2.58×10^{-4}	2.51×10^{-3}
LJP006 LNCAP 3H-alvocidib-1.11	6/112	3.14×10^{-4}	2.96×10^{-3}
LJP006 BT20 24H-alvocidib-0.04	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP006 SKBR3 3H-alvocidib-0.12	6/113	3.29×10^{-4}	3.08×10^{-3}
LJP006 MCF7 3H-alvocidib-0.12	6/121	4.75×10^{-4}	4.18×10^{-3}
LJP006 MDAMB231 24H-alvocidib-3.33	5/82	5.56×10^{-4}	4.77×10^{-3}
LJP006 HME1 24H-alvocidib-3.33	5/83	5.88×10^{-4}	4.99×10^{-3}
LJP006 LNCAP 3H-alvocidib-0.12	6/127	6.13×10^{-4}	5.19×10^{-3}
LJP006 MDAMB231 3H-alvocidib-0.04	5/87	7.29×10^{-4}	6.01×10^{-3}
LJP006 LNCAP 24H-alvocidib-0.04	8/238	7.64×10^{-4}	6.24×10^{-3}
LJP006 HS578T 24H-alvocidib-0.04	4/51	7.89×10^{-4}	6.40×10^{-3}
LJP006 HS578T 24H-alvocidib-0.12	5/89	8.09×10^{-4}	6.54×10^{-3}
LJP006 MDAMB231 3H-alvocidib-10	6/139	9.84×10^{-4}	7.70×10^{-3}
LJP006 HS578T 3H-alvocidib-0.37	6/141	1.06×10^{-3}	8.19×10^{-3}
LJP006 BT20 24H-alvocidib-1.11	5/95	1.09×10^{-3}	8.35×10^{-3}
LJP006 HME1 3H-alvocidib-0.04	6/142	1.10×10^{-3}	8.44×10^{-3}
LJP006 SKBR3 3H-alvocidib-0.04	4/59	1.37×10^{-3}	1.01×10^{-2}
LJP006 HME1 24H-alvocidib-0.04	5/108	1.92×10^{-3}	1.35×10^{-2}
LJP006 A375 24H-alvocidib-10	5/109	2.00×10^{-3}	1.39×10^{-2}
LJP006 BT20 3H-alvocidib-10	3/40	4.21×10^{-3}	2.55×10^{-2}
LJP006 HS578T 24H-alvocidib-10	4/86	5.38×10^{-3}	3.10×10^{-2}
LJP006 HME1 24H-alvocidib-1.11	4/88	5.83×10^{-3}	3.31×10^{-2}
LJP006 HA1E 24H-alvocidib-1.11	4/89	6.07×10^{-3}	3.40×10^{-2}
LJP006 MDAMB231 24H-alvocidib-0.37	4/92	6.82×10^{-3}	3.73×10^{-2}
LJP006 MDAMB231 24H-alvocidib-0.04	3/48	7.03×10^{-3}	3.82×10^{-2}
LJP006 MCF7 24H-alvocidib-0.12	2/17	8.29×10^{-3}	4.36×10^{-2}
LJP006 HS578T 3H-alvocidib-0.04	4/99	8.79×10^{-3}	4.55×10^{-2}
LJP006 LNCAP 3H-alvocidib-3.33	5/155	8.87×10^{-3}	4.59×10^{-2}
LJP006 BT20 3H-alvocidib-0.12	3/53	9.24×10^{-3}	4.75×10^{-2}

Table S20: Mitoxantrone significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP005 HEPG2 24H-mitoxantrone-0.37	19/142	5.43×10^{-18}	1.06×10^{-14}
LJP005 HEPG2 24H-mitoxantrone-0.12	14/110	3.03×10^{-13}	9.65×10^{-11}
LJP006 MCF7 24H-mitoxantrone-0.37	12/91	1.03×10^{-11}	1.81×10^{-9}
LJP006 MCF7 24H-mitoxantrone-3.33	13/122	2.20×10^{-11}	3.30×10^{-9}
LJP005 HEPG2 24H-mitoxantrone-1.11	13/130	4.96×10^{-11}	6.44×10^{-9}
LJP006 SKBR3 24H-mitoxantrone-0.04	10/71	2.95×10^{-10}	2.72×10^{-8}
LJP006 MCF10A 24H-mitoxantrone-3.33	12/155	5.43×10^{-9}	3.04×10^{-7}
LJP005 MCF7 24H-mitoxantrone-0.12	8/60	2.92×10^{-8}	1.27×10^{-6}
LJP006 HEPG2 24H-mitoxantrone-0.37	9/94	7.48×10^{-8}	2.82×10^{-6}
LJP005 SKBR3 24H-mitoxantrone-0.12	8/78	2.37×10^{-7}	7.36×10^{-6}
LJP006 A375 24H-mitoxantrone-10	9/108	2.50×10^{-7}	7.71×10^{-6}
LJP005 MCF10A 24H-mitoxantrone-1.11	9/111	3.16×10^{-7}	9.41×10^{-6}
LJP005 MDAMB231 3H-mitoxantrone-1.11	7/56	3.48×10^{-7}	1.02×10^{-5}
LJP006 HEPG2 24H-mitoxantrone-3.33	11/189	4.41×10^{-7}	1.24×10^{-5}
LJP006 MCF7 24H-mitoxantrone-1.11	9/123	7.57×10^{-7}	1.97×10^{-5}
LJP006 SKBR3 24H-mitoxantrone-1.11	9/124	8.10×10^{-7}	2.08×10^{-5}
LJP006 SKBR3 24H-mitoxantrone-0.12	8/92	8.53×10^{-7}	2.17×10^{-5}
LJP006 HA1E 24H-mitoxantrone-0.12	10/163	9.26×10^{-7}	2.33×10^{-5}
LJP006 SKBR3 24H-mitoxantrone-0.37	8/94	1.01×10^{-6}	2.48×10^{-5}
LJP006 BT20 24H-mitoxantrone-0.37	10/165	1.04×10^{-6}	2.55×10^{-5}
LJP006 SKBR3 3H-mitoxantrone-1.11	7/66	1.09×10^{-6}	2.66×10^{-5}
LJP006 MDAMB231 3H-mitoxantrone-1.11	6/43	1.27×10^{-6}	3.01×10^{-5}
LJP005 MCF10A 24H-mitoxantrone-10	8/102	1.88×10^{-6}	4.16×10^{-5}
LJP007 MCF7 24H-mitoxantrone-10	8/103	2.02×10^{-6}	4.39×10^{-5}
LJP005 MCF7 24H-mitoxantrone-1.11	8/110	3.32×10^{-6}	6.67×10^{-5}
LJP006 SKBR3 3H-mitoxantrone-0.37	7/79	3.72×10^{-6}	7.29×10^{-5}
LJP005 HEPG2 24H-mitoxantrone-3.33	10/194	4.46×10^{-6}	8.52×10^{-5}
LJP006 PC3 24H-mitoxantrone-0.37	6/53	4.47×10^{-6}	8.52×10^{-5}
LJP005 HA1E 24H-mitoxantrone-0.37	9/155	5.17×10^{-6}	9.71×10^{-5}
LJP006 HCC515 24H-mitoxantrone-1.11	9/156	5.45×10^{-6}	1.02×10^{-4}
LJP006 BT20 24H-mitoxantrone-1.11	9/157	5.74×10^{-6}	1.06×10^{-4}
LJP005 HCC515 24H-mitoxantrone-0.37	8/123	7.63×10^{-6}	1.34×10^{-4}
LJP006 BT20 24H-mitoxantrone-3.33	8/137	1.68×10^{-5}	2.55×10^{-4}
LJP006 PC3 24H-mitoxantrone-10	8/139	1.87×10^{-5}	2.78×10^{-4}
LJP005 MCF7 24H-mitoxantrone-10	6/68	1.93×10^{-5}	2.86×10^{-4}
LJP005 HA1E 24H-mitoxantrone-0.04	6/70	2.28×10^{-5}	3.31×10^{-4}
LJP006 MCF7 24H-mitoxantrone-0.12	6/71	2.47×10^{-5}	3.55×10^{-4}
LJP005 SKBR3 3H-mitoxantrone-0.12	5/45	3.17×10^{-5}	4.41×10^{-4}
LJP006 A549 24H-mitoxantrone-3.33	8/152	3.56×10^{-5}	4.84×10^{-4}
LJP007 PC3 24H-mitoxantrone-10	7/115	4.40×10^{-5}	5.80×10^{-4}
LJP005 HCC515 24H-mitoxantrone-3.33	8/158	4.68×10^{-5}	6.13×10^{-4}
LJP005 MCF10A 3H-mitoxantrone-3.33	5/49	4.83×10^{-5}	6.29×10^{-4}
LJP006 A549 24H-mitoxantrone-1.11	7/119	5.47×10^{-5}	6.99×10^{-4}
LJP009 PC3 24H-mitoxantrone-10	8/162	5.59×10^{-5}	7.11×10^{-4}
LJP008 A375 24H-mitoxantrone-10	7/120	5.77×10^{-5}	7.32×10^{-4}
LJP005 SKBR3 24H-mitoxantrone-3.33	7/120	5.77×10^{-5}	7.31×10^{-4}
LJP006 HEPG2 24H-mitoxantrone-1.11	7/120	5.77×10^{-5}	7.30×10^{-4}
LJP005 HA1E 24H-mitoxantrone-0.12	7/121	6.09×10^{-5}	7.60×10^{-4}
LJP005 MDAMB231 24H-mitoxantrone-0.37	5/52	6.45×10^{-5}	7.92×10^{-4}
LJP005 PC3 24H-mitoxantrone-0.37	5/52	6.45×10^{-5}	7.91×10^{-4}
LJP005 SKBR3 3H-mitoxantrone-1.11	6/85	6.87×10^{-5}	8.38×10^{-4}
LJP006 LNCAP 24H-mitoxantrone-0.37	6/86	7.33×10^{-5}	8.85×10^{-4}
LJP006 HME1 24H-mitoxantrone-1.11	7/125	7.48×10^{-5}	8.99×10^{-4}
LJP006 SKBR3 3H-mitoxantrone-0.12	5/54	7.75×10^{-5}	9.26×10^{-4}

Table S20: (Continued)

LJP005 HCC515 24H-mitoxantrone-1.11	7/126	7.87×10^{-5}	9.37×10^{-4}
CPC020 PC3 6H-mitoxantrone dihydrochloride-10.0	6/89	8.89×10^{-5}	1.04×10^{-3}
LJP005 SKBR3 3H-mitoxantrone-0.37	5/56	9.23×10^{-5}	1.07×10^{-3}
LJP005 A549 24H-mitoxantrone-3.33	8/182	1.26×10^{-4}	1.40×10^{-3}
LJP006 HA1E 24H-mitoxantrone-0.37	8/183	1.31×10^{-4}	1.43×10^{-3}
CPC020 PC3 24H-mitoxantrone dihydrochloride-10.0	8/189	1.64×10^{-4}	1.72×10^{-3}
LJP005 A375 24H-mitoxantrone-0.12	7/145	1.89×10^{-4}	1.93×10^{-3}
LJP005 MCF10A 24H-mitoxantrone-0.37	6/106	2.33×10^{-4}	2.31×10^{-3}
LJP006 HME1 3H-mitoxantrone-3.33	5/70	2.67×10^{-4}	2.60×10^{-3}
LJP006 A549 24H-mitoxantrone-0.12	6/109	2.71×10^{-4}	2.63×10^{-3}
LJP006 HT29 24H-mitoxantrone-0.37	4/39	2.80×10^{-4}	2.71×10^{-3}
LJP006 SKBR3 3H-mitoxantrone-3.33	4/39	2.80×10^{-4}	2.71×10^{-3}
LJP006 MCF10A 3H-mitoxantrone-0.12	4/40	3.09×10^{-4}	2.93×10^{-3}
LJP006 A549 24H-mitoxantrone-0.37	6/112	3.14×10^{-4}	2.97×10^{-3}
LJP006 HCC515 24H-mitoxantrone-3.33	7/160	3.45×10^{-4}	3.22×10^{-3}
LJP006 MDAMB231 3H-mitoxantrone-0.37	5/74	3.46×10^{-4}	3.21×10^{-3}
LJP006 MCF10A 3H-mitoxantrone-0.37	4/42	3.74×10^{-4}	3.44×10^{-3}
LJP005 SKBR3 24H-mitoxantrone-1.11	6/117	3.97×10^{-4}	3.62×10^{-3}
LJP006 PC3 24H-mitoxantrone-1.11	6/117	3.97×10^{-4}	3.62×10^{-3}
LJP005 MCF10A 3H-mitoxantrone-1.11	4/43	4.10×10^{-4}	3.72×10^{-3}
LJP006 HCC515 24H-mitoxantrone-0.37	6/121	4.75×10^{-4}	4.20×10^{-3}
LJP007 HT29 24H-mitoxantrone-10	6/123	5.18×10^{-4}	4.53×10^{-3}
LJP006 MDAMB231 3H-mitoxantrone-3.33	4/46	5.31×10^{-4}	4.62×10^{-3}
LJP005 HT29 24H-mitoxantrone-0.37	5/82	5.56×10^{-4}	4.82×10^{-3}
LJP005 MCF7 24H-mitoxantrone-0.37	5/82	5.56×10^{-4}	4.82×10^{-3}
LJP005 A549 24H-mitoxantrone-10	7/175	5.90×10^{-4}	5.03×10^{-3}
LJP006 HA1E 24H-mitoxantrone-0.04	6/127	6.13×10^{-4}	5.22×10^{-3}
LJP005 HS578T 3H-mitoxantrone-0.37	4/49	6.77×10^{-4}	5.68×10^{-3}
CPC020 A375 6H-mitoxantrone dihydrochloride-10.0	5/86	6.92×10^{-4}	5.79×10^{-3}
CPC005 HA1E 24H-mitoxantrone dihydrochloride-10.0	6/131	7.22×10^{-4}	6.02×10^{-3}
LJP005 MCF7 24H-mitoxantrone-3.33	6/131	7.22×10^{-4}	6.01×10^{-3}
LJP006 A375 24H-mitoxantrone-3.33	5/87	7.29×10^{-4}	6.06×10^{-3}
LJP006 A549 24H-mitoxantrone-10	7/183	7.69×10^{-4}	6.28×10^{-3}
LJP005 SKBR3 3H-mitoxantrone-3.33	4/55	1.05×10^{-3}	8.15×10^{-3}
LJP005 HS578T 24H-mitoxantrone-3.33	6/141	1.06×10^{-3}	8.20×10^{-3}
LJP006 HEPG2 24H-mitoxantrone-0.12	4/60	1.45×10^{-3}	1.06×10^{-2}
LJP006 HS578T 24H-mitoxantrone-0.12	4/60	1.45×10^{-3}	1.06×10^{-2}
CPC005 A375 24H-mitoxantrone dihydrochloride-10.0	7/209	1.66×10^{-3}	1.18×10^{-2}
LJP009 MCF7 24H-mitoxantrone-10	4/63	1.74×10^{-3}	1.23×10^{-2}
LJP008 MCF7 24H-mitoxantrone-10	4/63	1.74×10^{-3}	1.23×10^{-2}
LJP006 A375 24H-mitoxantrone-1.11	5/107	1.84×10^{-3}	1.29×10^{-2}
CPC005 PC3 24H-mitoxantrone dihydrochloride-10.0	6/158	1.89×10^{-3}	1.32×10^{-2}
LJP005 SKBR3 24H-mitoxantrone-0.04	4/65	1.96×10^{-3}	1.35×10^{-2}
LJP006 SKBR3 24H-mitoxantrone-10	5/109	2.00×10^{-3}	1.38×10^{-2}
LJP006 HT29 24H-mitoxantrone-3.33	6/167	2.50×10^{-3}	1.66×10^{-2}
LJP005 BT20 24H-mitoxantrone-10	4/70	2.57×10^{-3}	1.70×10^{-2}
CPD001 PC3 24H-mitoxantrone dihydrochloride-10.0	6/169	2.65×10^{-3}	1.74×10^{-2}
LJP005 A549 24H-mitoxantrone-1.11	5/117	2.72×10^{-3}	1.78×10^{-2}
LJP006 LNCAP 24H-mitoxantrone-0.04	4/72	2.84×10^{-3}	1.85×10^{-2}
LJP006 HEPG2 24H-mitoxantrone-10	6/172	2.90×10^{-3}	1.87×10^{-2}
LJP006 HME1 3H-mitoxantrone-0.37	3/36	3.11×10^{-3}	1.98×10^{-2}

Table S20: (Continued)

LJP006 SKBR3 24H-mitoxantrone-3.33	5/121	3.15×10^{-3}	1.99×10^{-2}
LJP005 HA1E 24H-mitoxantrone-3.33	5/125	3.62×10^{-3}	2.24×10^{-2}
LJP009 A375 24H-mitoxantrone-10	4/77	3.63×10^{-3}	2.24×10^{-2}
LJP005 MCF7 3H-mitoxantrone-3.33	4/78	3.80×10^{-3}	2.32×10^{-2}
LJP007 A375 24H-mitoxantrone-10	5/127	3.87×10^{-3}	2.35×10^{-2}
LJP005 HS578T 3H-mitoxantrone-3.33	3/39	3.92×10^{-3}	2.38×10^{-2}
LJP008 A549 24H-mitoxantrone-10	5/129	4.14×10^{-3}	2.49×10^{-2}
LJP006 LNCAP 24H-mitoxantrone-1.11	5/131	4.41×10^{-3}	2.61×10^{-2}
LJP005 HT29 24H-mitoxantrone-10	5/134	4.86×10^{-3}	2.80×10^{-2}
CPC020 HT29 6H-mitoxantrone dihydrochloride-10.0	3/43	5.16×10^{-3}	2.94×10^{-2}
LJP006 MCF7 24H-mitoxantrone-10	4/87	5.60×10^{-3}	3.13×10^{-2}
LJP006 BT20 24H-mitoxantrone-0.12	4/88	5.83×10^{-3}	3.24×10^{-2}
LJP006 HS578T 3H-mitoxantrone-10	3/46	6.24×10^{-3}	3.40×10^{-2}
LJP006 MCF10A 3H-mitoxantrone-3.33	3/50	7.87×10^{-3}	4.09×10^{-2}
LJP006 MDAMB231 24H-mitoxantrone-0.12	3/50	7.87×10^{-3}	4.09×10^{-2}
CPC005 MCF7 6H-mitoxantrone dihydrochloride-10.0	4/96	7.90×10^{-3}	4.10×10^{-2}
LJP005 HT29 24H-mitoxantrone-1.11	4/96	7.90×10^{-3}	4.09×10^{-2}
LJP005 HS578T 24H-mitoxantrone-0.37	5/152	8.19×10^{-3}	4.22×10^{-2}
LJP005 MDAMB231 3H-mitoxantrone-3.33	2/17	8.29×10^{-3}	4.26×10^{-2}
LJP006 HT29 24H-mitoxantrone-10	4/98	8.49×10^{-3}	4.32×10^{-2}
LJP006 MCF10A 3H-mitoxantrone-1.11	3/52	8.77×10^{-3}	4.44×10^{-2}
LJP005 MCF10A 24H-mitoxantrone-3.33	4/100	9.10×10^{-3}	4.58×10^{-2}

Table S21: Mitoxantrone significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP005 HCC515 24H-mitoxantrone-0.12	17/120	1.22×10^{-16}	2.02×10^{-13}
LJP007 HT29 24H-mitoxantrone-10	15/123	7.94×10^{-14}	3.13×10^{-11}
LJP005 HEPG2 24H-mitoxantrone-10	13/82	1.18×10^{-13}	4.40×10^{-11}
LJP005 SKBR3 24H-mitoxantrone-10	12/70	4.03×10^{-13}	1.24×10^{-10}
LJP005 BT20 3H-mitoxantrone-3.33	10/40	6.72×10^{-13}	1.89×10^{-10}
LJP008 PC3 24H-mitoxantrone-10	15/146	1.02×10^{-12}	2.69×10^{-10}
LJP006 SKBR3 24H-mitoxantrone-3.33	14/120	1.03×10^{-12}	2.68×10^{-10}
LJP005 A549 24H-mitoxantrone-3.33	16/185	2.53×10^{-12}	5.42×10^{-10}
LJP006 HCC515 24H-mitoxantrone-0.12	11/82	6.38×10^{-11}	7.36×10^{-9}
LJP006 HEPG2 24H-mitoxantrone-10	11/87	1.23×10^{-10}	1.24×10^{-8}
LJP005 SKBR3 24H-mitoxantrone-3.33	12/115	1.71×10^{-10}	1.63×10^{-8}
LJP006 HCC515 24H-mitoxantrone-0.37	11/92	2.28×10^{-10}	2.08×10^{-8}
LJP005 SKBR3 3H-mitoxantrone-10	9/52	3.46×10^{-10}	2.94×10^{-8}
LJP005 HA1E 24H-mitoxantrone-10	11/98	4.56×10^{-10}	3.66×10^{-8}
LJP006 BT20 24H-mitoxantrone-10	10/75	5.15×10^{-10}	4.03×10^{-8}
LJP007 A549 24H-mitoxantrone-10	7/25	8.91×10^{-10}	6.36×10^{-8}
LJP007 HCC515 24H-mitoxantrone-10	10/82	1.27×10^{-9}	8.48×10^{-8}
LJP005 HT29 24H-mitoxantrone-10	11/110	1.60×10^{-9}	1.03×10^{-7}
LJP005 HCC515 24H-mitoxantrone-10	11/111	1.76×10^{-9}	1.11×10^{-7}
LJP006 HS578T 24H-mitoxantrone-10	10/86	2.04×10^{-9}	1.27×10^{-7}
LJP005 PC3 24H-mitoxantrone-10	11/114	2.34×10^{-9}	1.43×10^{-7}
LJP006 HS578T 24H-mitoxantrone-3.33	11/115	2.57×10^{-9}	1.54×10^{-7}
LJP009 A375 24H-mitoxantrone-10	10/93	4.43×10^{-9}	2.44×10^{-7}
LJP006 HCC515 24H-mitoxantrone-10	10/94	4.92×10^{-9}	2.65×10^{-7}
LJP006 HS578T 3H-mitoxantrone-1.11	9/74	8.93×10^{-9}	4.42×10^{-7}
LJP009 HCC515 24H-mitoxantrone-10	9/75	1.01×10^{-8}	4.87×10^{-7}
LJP009 HT29 24H-mitoxantrone-10	10/104	1.32×10^{-8}	6.08×10^{-7}
LJP008 HCC515 24H-mitoxantrone-10	9/78	1.43×10^{-8}	6.50×10^{-7}
LJP009 HEPG2 24H-mitoxantrone-10	10/108	1.91×10^{-8}	8.23×10^{-7}
LJP006 MCF10A 3H-mitoxantrone-10	9/81	2.01×10^{-8}	8.50×10^{-7}
LJP006 MCF7 24H-mitoxantrone-10	8/61	3.34×10^{-8}	1.31×10^{-6}
LJP005 HS578T 24H-mitoxantrone-0.37	11/152	4.83×10^{-8}	1.82×10^{-6}
LJP008 HEPG2 24H-mitoxantrone-10	9/90	5.11×10^{-8}	1.91×10^{-6}
LJP006 HS578T 24H-mitoxantrone-0.37	10/122	6.17×10^{-8}	2.24×10^{-6}
LJP008 A549 24H-mitoxantrone-10	9/93	6.81×10^{-8}	2.42×10^{-6}
LJP005 HS578T 3H-mitoxantrone-3.33	9/93	6.81×10^{-8}	2.42×10^{-6}
LJP005 HCC515 24H-mitoxantrone-3.33	9/96	8.99×10^{-8}	3.05×10^{-6}
LJP005 BT20 24H-mitoxantrone-10	9/101	1.40×10^{-7}	4.48×10^{-6}
LJP005 HCC515 24H-mitoxantrone-1.11	9/101	1.40×10^{-7}	4.47×10^{-6}
LJP006 A375 24H-mitoxantrone-10	10/134	1.50×10^{-7}	4.75×10^{-6}
LJP005 HS578T 3H-mitoxantrone-1.11	9/102	1.52×10^{-7}	4.81×10^{-6}
LJP005 MCF7 24H-mitoxantrone-10	7/50	1.56×10^{-7}	4.92×10^{-6}
LJP008 HA1E 24H-mitoxantrone-10	9/103	1.66×10^{-7}	5.19×10^{-6}
LJP006 SKBR3 24H-mitoxantrone-10	8/78	2.37×10^{-7}	6.96×10^{-6}
LJP006 LNCAP 3H-mitoxantrone-3.33	7/54	2.69×10^{-7}	7.74×10^{-6}
LJP005 HA1E 24H-mitoxantrone-0.37	9/109	2.70×10^{-7}	7.75×10^{-6}
LJP005 A549 24H-mitoxantrone-10	10/143	2.76×10^{-7}	7.88×10^{-6}
LJP006 HT29 24H-mitoxantrone-10	8/80	2.89×10^{-7}	8.18×10^{-6}
LJP006 PC3 24H-mitoxantrone-10	9/110	2.92×10^{-7}	8.24×10^{-6}
LJP005 BT20 3H-mitoxantrone-1.11	7/55	3.07×10^{-7}	8.58×10^{-6}
LJP006 HA1E 24H-mitoxantrone-1.11	9/113	3.68×10^{-7}	9.95×10^{-6}
LJP005 HS578T 24H-mitoxantrone-0.12	8/85	4.63×10^{-7}	1.21×10^{-5}
LJP006 HS578T 3H-mitoxantrone-3.33	8/92	8.53×10^{-7}	2.02×10^{-5}
LJP005 MCF10A 3H-mitoxantrone-1.11	7/65	9.82×10^{-7}	2.28×10^{-5}

Table S21: (Continued)

LJP006 LNCAP 24H-mitoxantrone-1.11	11/207	1.09×10^{-6}	2.49×10^{-5}
LJP006 LNCAP 24H-mitoxantrone-10	8/95	1.09×10^{-6}	2.50×10^{-5}
LJP006 SKBR3 3H-mitoxantrone-10	7/70	1.63×10^{-6}	3.50×10^{-5}
LJP006 HME1 24H-mitoxantrone-0.37	6/46	1.91×10^{-6}	3.97×10^{-5}
LJP005 MDAMB231 3H-mitoxantrone-3.33	7/72	1.98×10^{-6}	4.10×10^{-5}
LJP006 MCF10A 3H-mitoxantrone-0.12	6/48	2.47×10^{-6}	4.92×10^{-5}
LJP005 HA1E 24H-mitoxantrone-0.12	7/77	3.13×10^{-6}	6.01×10^{-5}
LJP006 HCC515 24H-mitoxantrone-3.33	6/51	3.55×10^{-6}	6.66×10^{-5}
LJP006 MCF7 3H-mitoxantrone-10	6/52	3.99×10^{-6}	7.40×10^{-5}
LJP006 PC3 24H-mitoxantrone-3.33	9/152	4.41×10^{-6}	8.06×10^{-5}
LJP009 MCF7 24H-mitoxantrone-10	8/117	5.26×10^{-6}	9.40×10^{-5}
LJP005 HA1E 24H-mitoxantrone-3.33	7/86	6.57×10^{-6}	1.13×10^{-4}
LJP005 A375 24H-mitoxantrone-10	8/121	6.76×10^{-6}	1.16×10^{-4}
LJP008 MCF7 24H-mitoxantrone-10	6/57	6.88×10^{-6}	1.18×10^{-4}
LJP009 PC3 24H-mitoxantrone-10	9/163	7.79×10^{-6}	1.30×10^{-4}
LJP006 MDAMB231 24H-mitoxantrone-3.33	8/124	8.10×10^{-6}	1.35×10^{-4}
LJP007 A375 24H-mitoxantrone-10	7/89	8.26×10^{-6}	1.37×10^{-4}
LJP006 A375 24H-mitoxantrone-3.33	6/59	8.42×10^{-6}	1.40×10^{-4}
LJP005 HT29 24H-mitoxantrone-0.37	6/60	9.30×10^{-6}	1.52×10^{-4}
LJP006 MDAMB231 3H-mitoxantrone-3.33	8/127	9.66×10^{-6}	1.57×10^{-4}
LJP005 HS578T 24H-mitoxantrone-1.11	7/92	1.03×10^{-5}	1.66×10^{-4}
LJP006 HME1 24H-mitoxantrone-1.11	6/62	1.13×10^{-5}	1.79×10^{-4}
LJP005 HEPG2 24H-mitoxantrone-3.33	8/132	1.28×10^{-5}	2.00×10^{-4}
LJP006 HA1E 24H-mitoxantrone-0.12	8/133	1.35×10^{-5}	2.11×10^{-4}
LJP006 BT20 24H-mitoxantrone-0.12	6/64	1.36×10^{-5}	2.11×10^{-4}
LJP005 MCF10A 3H-mitoxantrone-10	6/65	1.48×10^{-5}	2.27×10^{-4}
LJP005 HT29 24H-mitoxantrone-1.11	7/98	1.56×10^{-5}	2.36×10^{-4}
LJP006 HA1E 24H-mitoxantrone-10	5/40	1.77×10^{-5}	2.63×10^{-4}
LJP006 MCF7 3H-mitoxantrone-1.11	5/40	1.77×10^{-5}	2.63×10^{-4}
LJP005 A549 24H-mitoxantrone-1.11	9/183	1.97×10^{-5}	2.88×10^{-4}
LJP006 MCF10A 24H-mitoxantrone-0.12	7/103	2.16×10^{-5}	3.12×10^{-4}
LJP005 MDAMB231 3H-mitoxantrone-1.11	6/72	2.68×10^{-5}	3.77×10^{-4}
LJP006 MDAMB231 3H-mitoxantrone-1.11	6/73	2.90×10^{-5}	4.01×10^{-4}
LJP005 MDAMB231 3H-mitoxantrone-10	6/75	3.38×10^{-5}	4.59×10^{-4}
LJP005 SKBR3 24H-mitoxantrone-1.11	6/77	3.93×10^{-5}	5.20×10^{-4}
LJP006 MDAMB231 3H-mitoxantrone-10	7/114	4.16×10^{-5}	5.43×10^{-4}
LJP006 HEPG2 24H-mitoxantrone-3.33	7/117	4.91×10^{-5}	6.23×10^{-4}
LJP006 BT20 24H-mitoxantrone-1.11	6/81	5.24×10^{-5}	6.61×10^{-4}
LJP006 MCF10A 3H-mitoxantrone-3.33	6/82	5.61×10^{-5}	6.99×10^{-4}
LJP006 HS578T 24H-mitoxantrone-1.11	6/84	6.43×10^{-5}	7.85×10^{-4}
LJP005 HCC515 24H-mitoxantrone-0.37	6/85	6.87×10^{-5}	8.30×10^{-4}
LJP006 A549 24H-mitoxantrone-3.33	8/167	6.93×10^{-5}	8.34×10^{-4}
LJP007 HA1E 24H-mitoxantrone-10	6/87	7.83×10^{-5}	9.17×10^{-4}
LJP005 HA1E 24H-mitoxantrone-0.04	5/55	8.46×10^{-5}	9.85×10^{-4}
LJP005 HS578T 3H-mitoxantrone-10	5/55	8.46×10^{-5}	9.84×10^{-4}
LJP006 LNCAP 3H-mitoxantrone-10	5/57	1.01×10^{-4}	1.13×10^{-3}
LJP005 A375 24H-mitoxantrone-3.33	6/92	1.07×10^{-4}	1.19×10^{-3}
LJP006 MDAMB231 24H-mitoxantrone-10	4/31	1.13×10^{-4}	1.24×10^{-3}
LJP005 MCF7 3H-mitoxantrone-10	6/93	1.13×10^{-4}	1.25×10^{-3}
LJP006 MDAMB231 24H-mitoxantrone-0.37	5/59	1.19×10^{-4}	1.30×10^{-3}
LJP005 PC3 24H-mitoxantrone-1.11	6/94	1.20×10^{-4}	1.32×10^{-3}
LJP006 A549 24H-mitoxantrone-10	6/94	1.20×10^{-4}	1.31×10^{-3}
LJP005 HS578T 24H-mitoxantrone-3.33	6/96	1.35×10^{-4}	1.46×10^{-3}
LJP005 BT20 3H-mitoxantrone-10	5/61	1.39×10^{-4}	1.49×10^{-3}
LJP006 HME1 24H-mitoxantrone-10	5/61	1.39×10^{-4}	1.49×10^{-3}
LJP006 HA1E 24H-mitoxantrone-3.33	6/97	1.43×10^{-4}	1.53×10^{-3}
LJP006 HME1 24H-mitoxantrone-3.33	5/63	1.62×10^{-4}	1.70×10^{-3}

Table S21: (Continued)

LJP006 MCF10A 3H-mitoxantrone-1.11	5/63	1.62×10^{-4}	1.70×10^{-3}
LJP007 HEPG2 24H-mitoxantrone-10	5/64	1.75×10^{-4}	1.80×10^{-3}
LJP006 LNCAP 24H-mitoxantrone-3.33	6/101	1.79×10^{-4}	1.84×10^{-3}
LJP006 LNCAP 24H-mitoxantrone-0.37	8/195	2.03×10^{-4}	2.04×10^{-3}
LJP005 MDAMB231 3H-mitoxantrone-0.04	4/37	2.28×10^{-4}	2.27×10^{-3}
LJP006 HT29 24H-mitoxantrone-3.33	7/150	2.33×10^{-4}	2.31×10^{-3}
LJP005 MCF10A 3H-mitoxantrone-3.33	4/38	2.53×10^{-4}	2.48×10^{-3}
LJP006 HEPG2 24H-mitoxantrone-1.11	6/108	2.58×10^{-4}	2.51×10^{-3}
LJP006 HS578T 3H-mitoxantrone-10	5/71	2.85×10^{-4}	2.73×10^{-3}
LJP005 MDAMB231 24H-mitoxantrone-10	3/17	3.32×10^{-4}	3.11×10^{-3}
LJP005 PC3 24H-mitoxantrone-0.12	4/41	3.40×10^{-4}	3.17×10^{-3}
LJP005 PC3 24H-mitoxantrone-3.33	6/116	3.79×10^{-4}	3.45×10^{-3}
LJP007 MCF7 24H-mitoxantrone-10	6/120	4.54×10^{-4}	4.02×10^{-3}
LJP006 MCF7 24H-mitoxantrone-1.11	6/121	4.75×10^{-4}	4.18×10^{-3}
LJP006 HME1 3H-mitoxantrone-3.33	5/81	5.26×10^{-4}	4.57×10^{-3}
LJP005 HA1E 24H-mitoxantrone-1.11	5/82	5.56×10^{-4}	4.78×10^{-3}
LJP005 HT29 24H-mitoxantrone-3.33	7/177	6.32×10^{-4}	5.30×10^{-3}
LJP006 A549 24H-mitoxantrone-1.11	6/130	6.93×10^{-4}	5.73×10^{-3}
LJP006 MCF7 3H-mitoxantrone-3.33	4/50	7.31×10^{-4}	5.98×10^{-3}
LJP008 HT29 24H-mitoxantrone-10	4/55	1.05×10^{-3}	8.16×10^{-3}
LJP006 HS578T 24H-mitoxantrone-0.12	4/56	1.12×10^{-3}	8.61×10^{-3}
LJP005 MDAMB231 24H-mitoxantrone-3.33	3/28	1.50×10^{-3}	1.10×10^{-2}
LJP006 SKBR3 3H-mitoxantrone-3.33	4/61	1.55×10^{-3}	1.12×10^{-2}
LJP008 A375 24H-mitoxantrone-10	5/103	1.56×10^{-3}	1.13×10^{-2}
LJP005 MCF10A 24H-mitoxantrone-0.04	4/62	1.64×10^{-3}	1.18×10^{-2}
LJP005 BT20 24H-mitoxantrone-3.33	4/64	1.85×10^{-3}	1.30×10^{-2}
LJP006 HME1 3H-mitoxantrone-10	4/64	1.85×10^{-3}	1.30×10^{-2}
LJP006 PC3 24H-mitoxantrone-0.37	4/64	1.85×10^{-3}	1.30×10^{-2}
LJP006 MDAMB231 24H-mitoxantrone-0.12	3/31	2.02×10^{-3}	1.40×10^{-2}
LJP005 MCF7 3H-mitoxantrone-1.11	4/66	2.07×10^{-3}	1.43×10^{-2}
LJP006 HA1E 24H-mitoxantrone-0.37	5/111	2.16×10^{-3}	1.49×10^{-2}
LJP006 BT20 24H-mitoxantrone-0.37	4/69	2.44×10^{-3}	1.63×10^{-2}
LJP005 SKBR3 24H-mitoxantrone-0.37	4/72	2.84×10^{-3}	1.86×10^{-2}
LJP005 HS578T 3H-mitoxantrone-0.37	3/36	3.11×10^{-3}	2.01×10^{-2}
LJP006 HEPG2 24H-mitoxantrone-0.37	5/125	3.62×10^{-3}	2.27×10^{-2}
LJP006 A549 24H-mitoxantrone-0.12	5/129	4.14×10^{-3}	2.52×10^{-2}
LJP006 MCF7 24H-mitoxantrone-3.33	4/81	4.35×10^{-3}	2.61×10^{-2}
CPC020 HT29 6H-mitoxantrone dihydrochloride-10.0	6/190	4.71×10^{-3}	2.80×10^{-2}
LJP005 A375 24H-mitoxantrone-1.11	4/83	4.74×10^{-3}	2.81×10^{-2}
LJP006 HME1 3H-mitoxantrone-1.11	3/43	5.16×10^{-3}	2.99×10^{-2}
LJP006 HT29 24H-mitoxantrone-0.37	3/43	5.16×10^{-3}	2.99×10^{-2}
LJP006 BT20 24H-mitoxantrone-3.33	4/86	5.38×10^{-3}	3.10×10^{-2}
LJP006 LNCAP 3H-mitoxantrone-1.11	3/46	6.24×10^{-3}	3.47×10^{-2}
LJP006 HCC515 24H-mitoxantrone-1.11	4/91	6.56×10^{-3}	3.62×10^{-2}
LJP006 MDAMB231 3H-mitoxantrone-0.37	3/47	6.63×10^{-3}	3.64×10^{-2}
LJP006 SKBR3 3H-mitoxantrone-1.11	3/47	6.63×10^{-3}	3.64×10^{-2}
CPC020 PC3 6H-mitoxantrone dihydrochloride-10.0	6/205	6.77×10^{-3}	3.71×10^{-2}
LJP005 BT20 24H-mitoxantrone-1.11	3/48	7.03×10^{-3}	3.84×10^{-2}
LJP009 A549 24H-mitoxantrone-10	3/48	7.03×10^{-3}	3.83×10^{-2}
LJP005 SKBR3 3H-mitoxantrone-3.33	3/48	7.03×10^{-3}	3.83×10^{-2}
LJP006 SKBR3 24H-mitoxantrone-1.11	4/94	7.35×10^{-3}	3.97×10^{-2}
LJP005 SKBR3 24H-mitoxantrone-0.04	3/49	7.44×10^{-3}	4.00×10^{-2}
LJP005 MCF10A 24H-mitoxantrone-1.11	5/149	7.55×10^{-3}	4.04×10^{-2}
LJP007 PC3 24H-mitoxantrone-10	4/97	8.19×10^{-3}	4.33×10^{-2}

Table S22: QL-XII-47 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 MCF7 24H-QL-XII-47-3.33	18/163	1.37×10^{-15}	1.13×10^{-12}
LJP006 A549 24H-QL-XII-47-10	19/219	1.89×10^{-14}	9.96×10^{-12}
LJP006 HME1 24H-QL-XII-47-1.11	15/153	2.04×10^{-12}	5.07×10^{-10}
LJP006 MCF7 24H-QL-XII-47-1.11	14/131	3.49×10^{-12}	7.65×10^{-10}
LJP006 LNCAP 24H-QL-XII-47-0.37	13/122	2.20×10^{-11}	3.32×10^{-9}
LJP006 SKBR3 24H-QL-XII-47-0.37	12/99	2.86×10^{-11}	4.12×10^{-9}
LJP006 MCF10A 3H-QL-XII-47-10	12/103	4.60×10^{-11}	6.10×10^{-9}
LJP006 HME1 24H-QL-XII-47-0.37	12/106	6.49×10^{-11}	7.87×10^{-9}
LJP006 HCC515 24H-QL-XII-47-10	13/143	1.66×10^{-10}	1.68×10^{-8}
LJP006 A375 24H-QL-XII-47-0.12	8/38	6.51×10^{-10}	5.27×10^{-8}
LJP006 BT20 24H-QL-XII-47-0.04	9/56	6.93×10^{-10}	5.58×10^{-8}
LJP006 HT29 24H-QL-XII-47-10	11/107	1.18×10^{-9}	8.48×10^{-8}
LJP006 MCF7 24H-QL-XII-47-10	14/204	1.34×10^{-9}	9.34×10^{-8}
LJP006 MDAMB231 3H-QL-XII-47-10	11/130	9.46×10^{-9}	4.91×10^{-7}
LJP006 MCF7 24H-QL-XII-47-0.37	10/103	1.21×10^{-8}	6.00×10^{-7}
LJP006 HEPG2 24H-QL-XII-47-1.11	11/134	1.30×10^{-8}	6.37×10^{-7}
LJP006 HME1 3H-QL-XII-47-3.33	11/135	1.41×10^{-8}	6.81×10^{-7}
LJP006 BT20 24H-QL-XII-47-0.12	12/172	1.76×10^{-8}	8.21×10^{-7}
LJP006 A549 24H-QL-XII-47-3.33	7/49	1.35×10^{-7}	4.65×10^{-6}
LJP006 HME1 3H-QL-XII-47-1.11	10/135	1.61×10^{-7}	5.37×10^{-6}
LJP006 A375 24H-QL-XII-47-3.33	11/172	1.71×10^{-7}	5.64×10^{-6}
LJP006 MCF7 3H-QL-XII-47-10	9/111	3.16×10^{-7}	9.38×10^{-6}
LJP006 LNCAP 24H-QL-XII-47-1.11	12/227	3.67×10^{-7}	1.07×10^{-5}
LJP006 HME1 3H-QL-XII-47-0.37	9/113	3.68×10^{-7}	1.07×10^{-5}
LJP006 HEPG2 24H-QL-XII-47-0.12	6/37	5.04×10^{-7}	1.39×10^{-5}
LJP006 MCF7 3H-QL-XII-47-3.33	8/86	5.07×10^{-7}	1.39×10^{-5}
LJP006 HEPG2 24H-QL-XII-47-3.33	9/120	6.14×10^{-7}	1.65×10^{-5}
LJP006 MCF10A 24H-QL-XII-47-3.33	9/121	6.59×10^{-7}	1.75×10^{-5}
LJP006 MCF7 3H-QL-XII-47-1.11	7/62	7.08×10^{-7}	1.86×10^{-5}
LJP006 MDAMB231 3H-QL-XII-47-0.37	7/64	8.83×10^{-7}	2.23×10^{-5}
LJP006 MDAMB231 3H-QL-XII-47-1.11	8/99	1.50×10^{-6}	3.44×10^{-5}
LJP006 BT20 3H-QL-XII-47-1.11	7/71	1.80×10^{-6}	4.02×10^{-5}
LJP006 HT29 24H-QL-XII-47-0.12	5/27	2.36×10^{-6}	5.04×10^{-5}
LJP006 SKBR3 24H-QL-XII-47-10	10/191	3.88×10^{-6}	7.56×10^{-5}
LJP006 BT20 3H-QL-XII-47-0.12	4/16	7.17×10^{-6}	1.27×10^{-4}
LJP006 BT20 3H-QL-XII-47-3.33	6/59	8.42×10^{-6}	1.44×10^{-4}
LJP006 MDAMB231 3H-QL-XII-47-3.33	8/127	9.66×10^{-6}	1.61×10^{-4}
LJP006 BT20 3H-QL-XII-47-0.37	6/64	1.36×10^{-5}	2.14×10^{-4}
LJP006 SKBR3 3H-QL-XII-47-10	6/66	1.62×10^{-5}	2.47×10^{-4}
LJP006 HME1 24H-QL-XII-47-3.33	8/146	2.66×10^{-5}	3.79×10^{-4}
LJP006 MCF10A 3H-QL-XII-47-3.33	6/76	3.65×10^{-5}	4.95×10^{-4}
LJP006 BT20 3H-QL-XII-47-0.04	4/24	3.98×10^{-5}	5.33×10^{-4}
LJP006 LNCAP 24H-QL-XII-47-3.33	9/203	4.45×10^{-5}	5.87×10^{-4}
LJP006 SKBR3 24H-QL-XII-47-3.33	9/203	4.45×10^{-5}	5.87×10^{-4}
LJP006 MCF10A 24H-QL-XII-47-10	8/158	4.68×10^{-5}	6.12×10^{-4}
LJP006 SKBR3 24H-QL-XII-47-1.11	8/163	5.84×10^{-5}	7.38×10^{-4}
LJP006 HME1 3H-QL-XII-47-0.12	5/52	6.45×10^{-5}	7.91×10^{-4}
LJP006 MDAMB231 24H-QL-XII-47-1.11	4/28	7.47×10^{-5}	8.99×10^{-4}
LJP006 SKBR3 3H-QL-XII-47-3.33	6/92	1.07×10^{-4}	1.21×10^{-3}
LJP006 BT20 24H-QL-XII-47-0.37	8/180	1.17×10^{-4}	1.30×10^{-3}
LJP006 HEPG2 24H-QL-XII-47-10	6/95	1.28×10^{-4}	1.41×10^{-3}
LJP006 SKBR3 3H-QL-XII-47-1.11	6/95	1.28×10^{-4}	1.41×10^{-3}
LJP006 HS578T 24H-QL-XII-47-10	9/233	1.28×10^{-4}	1.40×10^{-3}
LJP006 MCF7 3H-QL-XII-47-0.04	4/33	1.45×10^{-4}	1.56×10^{-3}

Table S22: (Continued)

LJP006 A375 24H-QL-XII-47-1.11	6/103	1.99×10^{-4}	2.03×10^{-3}
LJP006 MCF7 24H-QL-XII-47-0.12	4/36	2.04×10^{-4}	2.07×10^{-3}
LJP006 MCF7 3H-QL-XII-47-0.37	4/37	2.28×10^{-4}	2.27×10^{-3}
LJP006 LNCAP 24H-QL-XII-47-0.12	5/83	5.88×10^{-4}	5.02×10^{-3}
LJP006 HS578T 3H-QL-XII-47-1.11	4/48	6.26×10^{-4}	5.30×10^{-3}
LJP006 A375 24H-QL-XII-47-10	6/131	7.22×10^{-4}	6.01×10^{-3}
LJP006 LNCAP 3H-QL-XII-47-1.11	4/51	7.89×10^{-4}	6.42×10^{-3}
LJP006 MDAMB231 24H-QL-XII-47-3.33	4/51	7.89×10^{-4}	6.41×10^{-3}
LJP006 BT20 24H-QL-XII-47-10	7/199	1.25×10^{-3}	9.39×10^{-3}
LJP006 HS578T 3H-QL-XII-47-3.33	4/59	1.37×10^{-3}	1.00×10^{-2}
LJP006 LNCAP 24H-QL-XII-47-10	7/212	1.80×10^{-3}	1.26×10^{-2}
LJP006 LNCAP 3H-QL-XII-47-3.33	4/66	2.07×10^{-3}	1.41×10^{-2}
LJP006 A549 24H-QL-XII-47-0.37	3/35	2.87×10^{-3}	1.85×10^{-2}
LJP006 LNCAP 3H-QL-XII-47-10	4/78	3.80×10^{-3}	2.32×10^{-2}
LJP006 BT20 24H-QL-XII-47-1.11	6/195	5.34×10^{-3}	3.02×10^{-2}
LJP006 HME1 24H-QL-XII-47-0.12	3/45	5.87×10^{-3}	3.24×10^{-2}
LJP006 MDAMB231 24H-QL-XII-47-10	4/95	7.62×10^{-3}	3.99×10^{-2}
LJP006 SKBR3 24H-QL-XII-47-0.12	3/53	9.24×10^{-3}	4.62×10^{-2}

Table S23: QL-XII-47 significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP006 BT20 24H-QL-XII-47-10	19/169	1.52×10^{-16}	2.29×10^{-13}
LJP006 SKBR3 24H-QL-XII-47-3.33	19/180	4.98×10^{-16}	5.69×10^{-13}
LJP006 HA1E 24H-QL-XII-47-1.11	16/178	1.40×10^{-12}	3.48×10^{-10}
LJP006 HS578T 24H-QL-XII-47-10	15/184	2.95×10^{-11}	3.91×10^{-9}
LJP006 HA1E 24H-QL-XII-47-0.37	12/106	6.49×10^{-11}	7.46×10^{-9}
LJP006 HA1E 24H-QL-XII-47-3.33	15/195	6.76×10^{-11}	7.72×10^{-9}
LJP006 LNCAP 24H-QL-XII-47-10	13/151	3.28×10^{-10}	2.80×10^{-8}
LJP006 SKBR3 24H-QL-XII-47-1.11	14/185	3.72×10^{-10}	3.10×10^{-8}
LJP006 LNCAP 24H-QL-XII-47-3.33	13/168	1.23×10^{-9}	8.37×10^{-8}
LJP006 HS578T 24H-QL-XII-47-3.33	13/175	2.03×10^{-9}	1.27×10^{-7}
LJP006 BT20 24H-QL-XII-47-0.37	12/164	1.03×10^{-8}	4.95×10^{-7}
LJP006 HME1 3H-QL-XII-47-10	9/90	5.11×10^{-8}	1.91×10^{-6}
LJP006 BT20 24H-QL-XII-47-3.33	11/165	1.12×10^{-7}	3.71×10^{-6}
LJP006 HME1 24H-QL-XII-47-0.12	7/52	2.06×10^{-7}	6.21×10^{-6}
LJP006 A549 24H-QL-XII-47-10	10/146	3.35×10^{-7}	9.26×10^{-6}
LJP006 MCF7 24H-QL-XII-47-3.33	9/116	4.60×10^{-7}	1.20×10^{-5}
LJP006 LNCAP 3H-QL-XII-47-0.37	6/43	1.27×10^{-6}	2.83×10^{-5}
LJP006 HA1E 24H-QL-XII-47-10	8/98	1.38×10^{-6}	3.03×10^{-5}
LJP006 BT20 24H-QL-XII-47-1.11	9/135	1.65×10^{-6}	3.53×10^{-5}
LJP006 HEPG2 24H-QL-XII-47-3.33	10/176	1.86×10^{-6}	3.89×10^{-5}
LJP006 MCF10A 24H-QL-XII-47-10	8/107	2.69×10^{-6}	5.29×10^{-5}
LJP006 HS578T 24H-QL-XII-47-1.11	6/49	2.80×10^{-6}	5.47×10^{-5}
LJP006 HME1 24H-QL-XII-47-1.11	9/152	4.41×10^{-6}	8.07×10^{-5}
LJP006 LNCAP 3H-QL-XII-47-1.11	5/32	5.70×10^{-6}	1.00×10^{-4}
LJP006 HCC515 24H-QL-XII-47-10	8/123	7.63×10^{-6}	1.28×10^{-4}
LJP006 MDAMB231 24H-QL-XII-47-3.33	6/60	9.30×10^{-6}	1.52×10^{-4}
LJP006 LNCAP 24H-QL-XII-47-1.11	9/170	1.09×10^{-5}	1.75×10^{-4}
LJP006 HEPG2 24H-QL-XII-47-1.11	10/219	1.29×10^{-5}	2.02×10^{-4}
LJP006 MCF7 24H-QL-XII-47-0.12	5/38	1.37×10^{-5}	2.11×10^{-4}
LJP006 LNCAP 3H-QL-XII-47-10	5/41	2.00×10^{-5}	2.92×10^{-4}
LJP006 HME1 24H-QL-XII-47-10	7/113	3.93×10^{-5}	5.18×10^{-4}
LJP006 HME1 24H-QL-XII-47-0.37	8/157	4.48×10^{-5}	5.77×10^{-4}
LJP006 LNCAP 3H-QL-XII-47-3.33	4/27	6.45×10^{-5}	7.86×10^{-4}
LJP006 SKBR3 24H-QL-XII-47-10	8/167	6.93×10^{-5}	8.34×10^{-4}
LJP006 HME1 24H-QL-XII-47-3.33	7/125	7.48×10^{-5}	8.86×10^{-4}
LJP006 HEPG2 24H-QL-XII-47-0.12	6/90	9.46×10^{-5}	1.07×10^{-3}
LJP006 HME1 3H-QL-XII-47-0.37	5/58	1.09×10^{-4}	1.21×10^{-3}
LJP006 MCF7 24H-QL-XII-47-0.37	5/58	1.09×10^{-4}	1.21×10^{-3}
LJP006 MCF7 24H-QL-XII-47-1.11	6/94	1.20×10^{-4}	1.31×10^{-3}
LJP006 LNCAP 3H-QL-XII-47-0.12	4/32	1.28×10^{-4}	1.39×10^{-3}
LJP006 BT20 3H-QL-XII-47-0.37	4/33	1.45×10^{-4}	1.53×10^{-3}
LJP006 HS578T 3H-QL-XII-47-1.11	4/41	3.40×10^{-4}	3.17×10^{-3}
LJP006 LNCAP 24H-QL-XII-47-0.37	6/115	3.62×10^{-4}	3.33×10^{-3}
LJP006 SKBR3 24H-QL-XII-47-0.12	4/60	1.45×10^{-3}	1.07×10^{-2}
LJP006 HS578T 3H-QL-XII-47-3.33	3/30	1.84×10^{-3}	1.30×10^{-2}
LJP006 MDAMB231 24H-QL-XII-47-10	4/65	1.96×10^{-3}	1.37×10^{-2}
LJP006 SKBR3 3H-QL-XII-47-1.11	4/72	2.84×10^{-3}	1.86×10^{-2}
LJP006 MCF7 24H-QL-XII-47-10	5/124	3.49×10^{-3}	2.19×10^{-2}
LJP006 BT20 24H-QL-XII-47-0.12	5/141	6.01×10^{-3}	3.38×10^{-2}
LJP006 BT20 3H-QL-XII-47-0.04	2/15	6.47×10^{-3}	3.57×10^{-2}
LJP006 A549 24H-QL-XII-47-0.37	4/98	8.49×10^{-3}	4.43×10^{-2}
LJP006 MCF10A 24H-QL-XII-47-1.11	3/53	9.24×10^{-3}	4.75×10^{-2}
LJP006 SKBR3 24H-QL-XII-47-0.37	4/101	9.42×10^{-3}	4.81×10^{-2}

Table S24: Geldanamycin significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert up’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert up			
LJP006 LNCAP 3H-geldanamycin-0.12	9/34	5.59×10^{-12}	1.10×10^{-9}
LJP006 HS578T 3H-geldanamycin-10	10/63	8.63×10^{-11}	1.01×10^{-8}
LJP005 PC3 24H-geldanamycin-1.11	11/86	1.08×10^{-10}	1.22×10^{-8}
LJP006 MCF7 24H-geldanamycin-0.12	10/73	3.91×10^{-10}	3.44×10^{-8}
LJP006 PC3 24H-geldanamycin-0.37	8/45	2.73×10^{-9}	1.69×10^{-7}
LJP005 BT20 3H-geldanamycin-10	9/65	2.75×10^{-9}	1.69×10^{-7}
LJP006 HME1 24H-geldanamycin-1.11	13/185	4.00×10^{-9}	2.31×10^{-7}
LJP006 MCF10A 24H-geldanamycin-10	12/157	6.28×10^{-9}	3.46×10^{-7}
LJP005 MCF7 3H-geldanamycin-0.37	9/72	6.97×10^{-9}	3.80×10^{-7}
LJP006 HME1 3H-geldanamycin-3.33	9/76	1.13×10^{-8}	5.70×10^{-7}
LJP005 MCF7 3H-geldanamycin-1.11	8/56	1.67×10^{-8}	7.88×10^{-7}
LJP005 HS578T 3H-geldanamycin-0.12	7/41	3.74×10^{-8}	1.56×10^{-6}
LJP006 HME1 3H-geldanamycin-1.11	9/90	5.11×10^{-8}	2.04×10^{-6}
LJP005 PC3 24H-geldanamycin-3.33	9/95	8.20×10^{-8}	3.04×10^{-6}
LJP005 HS578T 3H-geldanamycin-3.33	8/78	2.37×10^{-7}	7.37×10^{-6}
LJP006 BT20 3H-geldanamycin-10	7/54	2.69×10^{-7}	8.26×10^{-6}
LJP006 MCF10A 3H-geldanamycin-10	9/113	3.68×10^{-7}	1.07×10^{-5}
LJP006 HS578T 3H-geldanamycin-3.33	8/84	4.22×10^{-7}	1.20×10^{-5}
LJP005 HS578T 3H-geldanamycin-0.37	7/58	4.45×10^{-7}	1.25×10^{-5}
LJP006 LNCAP 3H-geldanamycin-1.11	7/59	5.02×10^{-7}	1.39×10^{-5}
LJP005 MCF10A 3H-geldanamycin-10	8/86	5.07×10^{-7}	1.40×10^{-5}
LJP005 MDAMB231 3H-geldanamycin-10	8/88	6.06×10^{-7}	1.63×10^{-5}
LJP005 MCF7 24H-geldanamycin-3.33	10/158	6.96×10^{-7}	1.84×10^{-5}
LJP006 MCF7 24H-geldanamycin-0.37	9/125	8.67×10^{-7}	2.20×10^{-5}
LJP006 LNCAP 24H-geldanamycin-1.11	8/97	1.28×10^{-6}	3.02×10^{-5}
LJP006 MCF7 24H-geldanamycin-1.11	9/135	1.65×10^{-6}	3.74×10^{-5}
LJP005 MDAMB231 3H-geldanamycin-0.37	6/47	2.18×10^{-6}	4.69×10^{-5}
LJP006 MDAMB231 3H-geldanamycin-0.12	6/47	2.18×10^{-6}	4.68×10^{-5}
LJP006 MCF10A 3H-geldanamycin-0.37	8/107	2.69×10^{-6}	5.62×10^{-5}
LJP006 HME1 3H-geldanamycin-0.37	7/77	3.13×10^{-6}	6.34×10^{-5}
LJP006 HME1 3H-geldanamycin-10	7/78	3.41×10^{-6}	6.81×10^{-5}
LJP005 BT20 3H-geldanamycin-0.04	5/31	4.84×10^{-6}	9.18×10^{-5}
LJP006 BT20 24H-geldanamycin-0.37	7/83	5.18×10^{-6}	9.69×10^{-5}
LJP005 A549 24H-geldanamycin-3.33	8/119	5.97×10^{-6}	1.10×10^{-4}
LJP005 SKBR3 3H-geldanamycin-0.37	6/56	6.19×10^{-6}	1.13×10^{-4}
LJP005 SKBR3 3H-geldanamycin-10	6/56	6.19×10^{-6}	1.13×10^{-4}
LJP005 MCF10A 24H-geldanamycin-10	8/121	6.76×10^{-6}	1.21×10^{-4}
LJP005 MCF7 24H-geldanamycin-10	6/57	6.88×10^{-6}	1.23×10^{-4}
LJP006 MCF7 3H-geldanamycin-0.37	6/57	6.88×10^{-6}	1.23×10^{-4}
LJP005 MCF7 24H-geldanamycin-1.11	8/122	7.18×10^{-6}	1.27×10^{-4}
LJP005 HS578T 24H-geldanamycin-0.12	7/88	7.66×10^{-6}	1.33×10^{-4}
LJP005 HS578T 3H-geldanamycin-0.04	5/34	7.77×10^{-6}	1.35×10^{-4}
LJP005 SKBR3 3H-geldanamycin-0.12	5/34	7.77×10^{-6}	1.34×10^{-4}
LJP006 A549 24H-geldanamycin-10	8/125	8.59×10^{-6}	1.47×10^{-4}
LJP005 HS578T 3H-geldanamycin-1.11	6/60	9.30×10^{-6}	1.57×10^{-4}
LJP006 LNCAP 24H-geldanamycin-3.33	9/168	9.95×10^{-6}	1.66×10^{-4}
LJP006 MDAMB231 3H-geldanamycin-3.33	6/61	1.02×10^{-5}	1.69×10^{-4}
LJP006 MCF10A 24H-geldanamycin-3.33	9/175	1.38×10^{-5}	2.16×10^{-4}
LJP006 BT20 24H-geldanamycin-10	8/134	1.43×10^{-5}	2.24×10^{-4}
LJP005 MCF7 24H-geldanamycin-0.37	6/65	1.48×10^{-5}	2.31×10^{-4}
LJP005 BT20 3H-geldanamycin-3.33	5/39	1.56×10^{-5}	2.40×10^{-4}
CPC015 A375 6H-geldanamycin-10.0	8/139	1.87×10^{-5}	2.79×10^{-4}
LJP006 HS578T 24H-geldanamycin-0.37	8/141	2.07×10^{-5}	3.04×10^{-4}
LJP005 HS578T 3H-geldanamycin-10	6/70	2.28×10^{-5}	3.31×10^{-4}

Table S24: (Continued)

LJP006 MCF10A 24H-geldanamycin-0.37	9/191	2.76×10^{-5}	3.91×10^{-4}
LJP006 SKBR3 3H-geldanamycin-1.11	5/45	3.17×10^{-5}	4.41×10^{-4}
LJP006 MDAMB231 24H-geldanamycin-3.33	7/112	3.71×10^{-5}	5.03×10^{-4}
LJP005 MCF10A 24H-geldanamycin-0.12	9/202	4.29×10^{-5}	5.69×10^{-4}
LJP006 LNCAP 3H-geldanamycin-0.37	5/48	4.36×10^{-5}	5.77×10^{-4}
LJP006 MDAMB231 24H-geldanamycin-0.37	6/79	4.54×10^{-5}	5.96×10^{-4}
LJP006 HME1 24H-geldanamycin-0.12	9/204	4.63×10^{-5}	6.05×10^{-4}
CPC011 HT29 6H-geldanamycin-10.0	6/83	6.01×10^{-5}	7.52×10^{-4}
LJP006 MDAMB231 3H-geldanamycin-10	5/52	6.45×10^{-5}	7.90×10^{-4}
LJP006 HT29 24H-geldanamycin-3.33	6/85	6.87×10^{-5}	8.37×10^{-4}
LJP006 BT20 24H-geldanamycin-0.12	6/86	7.33×10^{-5}	8.85×10^{-4}
LJP006 MCF10A 3H-geldanamycin-0.04	5/54	7.75×10^{-5}	9.26×10^{-4}
LJP005 HS578T 24H-geldanamycin-1.11	7/128	8.69×10^{-5}	1.02×10^{-3}
LJP006 MDAMB231 3H-geldanamycin-1.11	5/57	1.01×10^{-4}	1.15×10^{-3}
CPC006 DV90 6H-geldanamycin-10.0	6/91	1.01×10^{-4}	1.15×10^{-3}
LJP006 MDAMB231 24H-geldanamycin-1.11	6/91	1.01×10^{-4}	1.15×10^{-3}
LJP006 HME1 24H-geldanamycin-10	8/177	1.04×10^{-4}	1.18×10^{-3}
LJP005 SKBR3 24H-geldanamycin-1.11	6/93	1.13×10^{-4}	1.27×10^{-3}
LJP006 MCF10A 3H-geldanamycin-1.11	6/95	1.28×10^{-4}	1.41×10^{-3}
LJP006 HME1 3H-geldanamycin-0.04	4/32	1.28×10^{-4}	1.41×10^{-3}
LJP005 HCC515 24H-geldanamycin-3.33	6/99	1.60×10^{-4}	1.70×10^{-3}
LJP005 BT20 24H-geldanamycin-1.11	5/68	2.33×10^{-4}	2.31×10^{-3}
LJP006 BT20 24H-geldanamycin-1.11	5/68	2.33×10^{-4}	2.30×10^{-3}
LJP006 MCF10A 3H-geldanamycin-3.33	6/108	2.58×10^{-4}	2.51×10^{-3}
LJP005 HS578T 24H-geldanamycin-0.37	6/109	2.71×10^{-4}	2.63×10^{-3}
LJP006 HCC515 24H-geldanamycin-1.11	6/109	2.71×10^{-4}	2.63×10^{-3}
LJP005 MCF10A 24H-geldanamycin-0.37	8/205	2.84×10^{-4}	2.74×10^{-3}
LJP006 A549 24H-geldanamycin-3.33	6/110	2.85×10^{-4}	2.74×10^{-3}
LJP006 PC3 24H-geldanamycin-10	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP005 PC3 24H-geldanamycin-10	4/41	3.40×10^{-4}	3.19×10^{-3}
LJP005 BT20 24H-geldanamycin-10	5/74	3.46×10^{-4}	3.22×10^{-3}
LJP005 MCF10A 3H-geldanamycin-0.12	5/74	3.46×10^{-4}	3.22×10^{-3}
LJP005 HEPG2 24H-geldanamycin-1.11	6/115	3.62×10^{-4}	3.35×10^{-3}
LJP005 MCF10A 3H-geldanamycin-3.33	6/117	3.97×10^{-4}	3.63×10^{-3}
LJP006 MCF7 3H-geldanamycin-10	4/43	4.10×10^{-4}	3.72×10^{-3}
CPC019 VCAP 6H-geldanamycin-10.0	6/120	4.54×10^{-4}	4.05×10^{-3}
LJP006 HME1 24H-geldanamycin-3.33	7/168	4.63×10^{-4}	4.12×10^{-3}
LJP005 HCC515 24H-geldanamycin-1.11	5/81	5.26×10^{-4}	4.60×10^{-3}
LJP006 SKBR3 3H-geldanamycin-0.04	4/46	5.31×10^{-4}	4.62×10^{-3}
LJP006 LNCAP 24H-geldanamycin-10	6/125	5.64×10^{-4}	4.86×10^{-3}
LJP006 HME1 3H-geldanamycin-0.12	4/47	5.77×10^{-4}	4.96×10^{-3}
LJP006 MDAMB231 24H-geldanamycin-0.12	5/84	6.21×10^{-4}	5.28×10^{-3}
LJP005 HA1E 24H-geldanamycin-0.12	4/48	6.26×10^{-4}	5.31×10^{-3}
CPC020 HA1E 6H-geldanamycin-10.0	5/85	6.56×10^{-4}	5.53×10^{-3}
LJP005 HS578T 24H-geldanamycin-3.33	5/85	6.56×10^{-4}	5.52×10^{-3}
LJP006 HCC515 24H-geldanamycin-0.12	4/49	6.77×10^{-4}	5.68×10^{-3}
CPC009 A549 6H-geldanamycin-10.0	5/87	7.29×10^{-4}	6.06×10^{-3}
LJP006 HS578T 24H-geldanamycin-0.12	5/89	8.09×10^{-4}	6.56×10^{-3}
LJP006 HT29 24H-geldanamycin-1.11	5/91	8.94×10^{-4}	7.15×10^{-3}
LJP005 MCF10A 24H-geldanamycin-3.33	7/188	9.01×10^{-4}	7.19×10^{-3}
CPC016 A375 6H-geldanamycin-10.0	4/53	9.12×10^{-4}	7.27×10^{-3}
LJP005 MCF7 3H-geldanamycin-10	4/54	9.79×10^{-4}	7.69×10^{-3}
LJP006 MDAMB231 24H-geldanamycin-10	5/93	9.86×10^{-4}	7.71×10^{-3}
CPC005 HT29 6H-geldanamycin-10.0	5/94	1.04×10^{-3}	8.08×10^{-3}
LJP005 SKBR3 3H-geldanamycin-0.04	3/25	1.07×10^{-3}	8.27×10^{-3}
LJP006 SKBR3 24H-geldanamycin-0.37	5/95	1.09×10^{-3}	8.35×10^{-3}
LJP006 HME1 24H-geldanamycin-0.04	6/145	1.22×10^{-3}	9.20×10^{-3}

Table S24: (Continued)

LJP006 HA1E 24H-geldanamycin-0.12	4/58	1.28×10^{-3}	9.54×10^{-3}
LJP006 PC3 24H-geldanamycin-1.11	4/58	1.28×10^{-3}	9.53×10^{-3}
CPC010 A375 6H-geldanamycin-10.0	5/99	1.31×10^{-3}	9.70×10^{-3}
CPC006 NOMO1 6H-geldanamycin-10.0	5/100	1.37×10^{-3}	1.01×10^{-2}
LJP006 LNCAP 3H-geldanamycin-3.33	4/59	1.37×10^{-3}	1.00×10^{-2}
LJP006 HS578T 24H-geldanamycin-10	6/154	1.66×10^{-3}	1.18×10^{-2}
LJP006 HT29 24H-geldanamycin-10	5/105	1.70×10^{-3}	1.20×10^{-2}
CPC019 HCC515 6H-geldanamycin-10.0	5/106	1.77×10^{-3}	1.24×10^{-2}
LJP005 MDAMB231 3H-geldanamycin-1.11	4/64	1.85×10^{-3}	1.29×10^{-2}
LJP006 HCC515 24H-geldanamycin-10	4/64	1.85×10^{-3}	1.29×10^{-2}
CPC006 SW620 6H-geldanamycin-10.0	4/65	1.96×10^{-3}	1.36×10^{-2}
LJP005 SKBR3 3H-geldanamycin-3.33	4/67	2.19×10^{-3}	1.48×10^{-2}
LJP006 HME1 24H-geldanamycin-0.37	6/163	2.22×10^{-3}	1.49×10^{-2}
LJP005 A375 24H-geldanamycin-3.33	5/112	2.25×10^{-3}	1.52×10^{-2}
LJP006 MCF7 24H-geldanamycin-3.33	4/70	2.57×10^{-3}	1.70×10^{-2}
LJP006 SKBR3 24H-geldanamycin-0.04	4/72	2.84×10^{-3}	1.84×10^{-2}
LJP006 MCF7 3H-geldanamycin-1.11	3/37	3.37×10^{-3}	2.11×10^{-2}
LJP006 MCF10A 24H-geldanamycin-0.12	6/182	3.82×10^{-3}	2.33×10^{-2}
CPC006 VCAP 6H-geldanamycin-10.0	7/244	3.93×10^{-3}	2.38×10^{-2}
CPC004 VCAP 6H-geldanamycin-10.0	4/80	4.16×10^{-3}	2.50×10^{-2}
LJP006 HT29 24H-geldanamycin-0.37	3/40	4.21×10^{-3}	2.50×10^{-2}
CPC001 PC3 6H-geldanamycin-10.0	5/130	4.27×10^{-3}	2.54×10^{-2}
LJP006 SKBR3 3H-geldanamycin-3.33	3/41	4.51×10^{-3}	2.65×10^{-2}
LJP005 SKBR3 24H-geldanamycin-0.12	4/82	4.54×10^{-3}	2.66×10^{-2}
LJP006 HCC515 24H-geldanamycin-3.33	4/84	4.95×10^{-3}	2.84×10^{-2}
CPC008 A549 6H-geldanamycin-10.0	5/137	5.33×10^{-3}	3.02×10^{-2}
LJP006 SKBR3 3H-geldanamycin-0.37	3/44	5.51×10^{-3}	3.08×10^{-2}
CPC004 HT29 6H-geldanamycin-10.0	4/87	5.60×10^{-3}	3.13×10^{-2}
LJP006 BT20 24H-geldanamycin-3.33	4/88	5.83×10^{-3}	3.24×10^{-2}
LJP005 SKBR3 24H-geldanamycin-0.04	3/46	6.24×10^{-3}	3.40×10^{-2}
LJP006 MCF7 24H-geldanamycin-10	3/46	6.24×10^{-3}	3.40×10^{-2}
CPC006 SKLU1 6H-geldanamycin-10.0	4/90	6.31×10^{-3}	3.43×10^{-2}
LJP005 MCF10A 3H-geldanamycin-0.37	4/90	6.31×10^{-3}	3.43×10^{-2}
LJP006 HA1E 24H-geldanamycin-10	4/90	6.31×10^{-3}	3.43×10^{-2}
LJP006 SKBR3 3H-geldanamycin-10	3/49	7.44×10^{-3}	3.91×10^{-2}
LJP006 A549 24H-geldanamycin-1.11	4/95	7.62×10^{-3}	3.99×10^{-2}
LJP005 MCF10A 3H-geldanamycin-0.04	3/50	7.87×10^{-3}	4.10×10^{-2}
LJP005 A549 24H-geldanamycin-1.11	4/99	8.79×10^{-3}	4.45×10^{-2}
CPC019 HA1E 6H-geldanamycin-10.0	4/100	9.10×10^{-3}	4.58×10^{-2}
LJP006 LNCAP 24H-geldanamycin-0.37	4/101	9.42×10^{-3}	4.68×10^{-2}

Table S25: Geldanamycin significantly affects the expression of the selected 163 genes as evident in the ‘LINCS L1000 Chem Pert down’ category in Enrichr. The last number after the - is dose density.

Term	Overlap	P-value	Adjusted P-value
LINCS L1000 Chem Pert down			
LJP005 HA1E 24H-geldanamycin-3.33	18/148	2.41×10^{-16}	3.06×10^{-13}
LJP005 HS578T 24H-geldanamycin-10	16/131	1.11×10^{-14}	6.92×10^{-12}
LJP006 SKBR3 24H-geldanamycin-0.37	14/91	2.01×10^{-14}	1.07×10^{-11}
LJP006 HA1E 24H-geldanamycin-3.33	16/138	2.55×10^{-14}	1.26×10^{-11}
LJP005 HS578T 24H-geldanamycin-3.33	15/118	4.24×10^{-14}	1.98×10^{-11}
LJP006 HA1E 24H-geldanamycin-0.37	15/121	6.20×10^{-14}	2.53×10^{-11}
LJP006 HA1E 24H-geldanamycin-1.11	16/157	1.97×10^{-13}	6.87×10^{-11}
LJP006 MDAMB231 24H-geldanamycin-1.11	14/123	1.45×10^{-12}	3.54×10^{-10}
LJP006 SKBR3 24H-geldanamycin-0.12	12/78	1.56×10^{-12}	3.71×10^{-10}
LJP005 A375 24H-geldanamycin-3.33	16/183	2.14×10^{-12}	4.73×10^{-10}
LJP005 HA1E 24H-geldanamycin-10	14/137	6.46×10^{-12}	1.14×10^{-9}
LJP006 A375 24H-geldanamycin-0.37	15/166	6.69×10^{-12}	1.16×10^{-9}
LJP005 HA1E 24H-geldanamycin-1.11	14/142	1.06×10^{-11}	1.68×10^{-9}
LJP005 SKBR3 24H-geldanamycin-0.37	11/82	6.38×10^{-11}	7.41×10^{-9}
LJP005 SKBR3 24H-geldanamycin-1.11	10/63	8.63×10^{-11}	9.22×10^{-9}
LJP005 HS578T 24H-geldanamycin-1.11	12/109	9.04×10^{-11}	9.60×10^{-9}
LJP005 BT20 24H-geldanamycin-0.12	10/64	1.02×10^{-10}	1.05×10^{-8}
LJP005 HA1E 24H-geldanamycin-0.37	13/141	1.39×10^{-10}	1.37×10^{-8}
LJP006 A375 24H-geldanamycin-1.11	14/182	3.00×10^{-10}	2.60×10^{-8}
LJP006 MDAMB231 24H-geldanamycin-0.37	11/96	3.64×10^{-10}	3.05×10^{-8}
LJP006 BT20 24H-geldanamycin-1.11	10/75	5.15×10^{-10}	4.04×10^{-8}
LJP005 HEPG2 24H-geldanamycin-3.33	13/159	6.23×10^{-10}	4.77×10^{-8}
LJP006 HS578T 24H-geldanamycin-10	12/132	8.57×10^{-10}	6.20×10^{-8}
LJP005 MCF10A 3H-geldanamycin-0.04	9/61	1.53×10^{-9}	9.92×10^{-8}
LJP006 SKBR3 24H-geldanamycin-0.04	10/89	2.86×10^{-9}	1.68×10^{-7}
LJP006 HS578T 24H-geldanamycin-0.37	12/148	3.20×10^{-9}	1.85×10^{-7}
LJP006 SKBR3 24H-geldanamycin-1.11	8/50	6.57×10^{-9}	3.39×10^{-7}
LJP006 HEPG2 24H-geldanamycin-3.33	10/98	7.41×10^{-9}	3.75×10^{-7}
LJP006 BT20 24H-geldanamycin-0.12	9/74	8.93×10^{-9}	4.44×10^{-7}
LJP005 SKBR3 24H-geldanamycin-0.04	9/78	1.43×10^{-8}	6.49×10^{-7}
LJP005 A375 24H-geldanamycin-0.04	9/81	2.01×10^{-8}	8.55×10^{-7}
LJP006 HS578T 24H-geldanamycin-1.11	11/145	2.97×10^{-8}	1.18×10^{-6}
LJP006 HA1E 24H-geldanamycin-10	9/86	3.42×10^{-8}	1.34×10^{-6}
LJP006 SKBR3 24H-geldanamycin-3.33	9/86	3.42×10^{-8}	1.33×10^{-6}
LJP006 HME1 24H-geldanamycin-0.04	10/121	5.70×10^{-8}	2.08×10^{-6}
LJP006 HS578T 24H-geldanamycin-3.33	10/122	6.17×10^{-8}	2.24×10^{-6}
LJP006 MCF10A 3H-geldanamycin-0.37	8/66	6.30×10^{-8}	2.25×10^{-6}
LJP005 MDAMB231 24H-geldanamycin-3.33	7/46	8.60×10^{-8}	2.95×10^{-6}
LJP006 A549 24H-geldanamycin-0.37	6/28	8.68×10^{-8}	2.96×10^{-6}
LJP006 HS578T 24H-geldanamycin-0.12	9/97	9.84×10^{-8}	3.31×10^{-6}
LJP006 HME1 24H-geldanamycin-3.33	11/164	1.05×10^{-7}	3.51×10^{-6}
LJP006 A375 24H-geldanamycin-0.04	9/104	1.80×10^{-7}	5.55×10^{-6}
LJP005 SKBR3 24H-geldanamycin-3.33	8/78	2.37×10^{-7}	6.98×10^{-6}
LJP006 MCF10A 3H-geldanamycin-3.33	8/80	2.89×10^{-7}	8.17×10^{-6}
LJP006 MDAMB231 24H-geldanamycin-3.33	8/84	4.22×10^{-7}	1.12×10^{-5}
LJP005 MCF10A 3H-geldanamycin-0.37	8/85	4.63×10^{-7}	1.20×10^{-5}
LJP005 MCF10A 3H-geldanamycin-0.12	8/86	5.07×10^{-7}	1.29×10^{-5}
LJP006 HME1 24H-geldanamycin-10	10/153	5.17×10^{-7}	1.31×10^{-5}
LJP006 HEPG2 24H-geldanamycin-1.11	8/88	6.06×10^{-7}	1.50×10^{-5}
LJP005 HS578T 24H-geldanamycin-0.12	8/89	6.61×10^{-7}	1.62×10^{-5}
LJP006 MDAMB231 24H-geldanamycin-0.12	8/89	6.61×10^{-7}	1.61×10^{-5}
LJP006 MCF10A 3H-geldanamycin-0.04	7/62	7.08×10^{-7}	1.72×10^{-5}
LJP006 BT20 24H-geldanamycin-3.33	8/94	1.01×10^{-6}	2.32×10^{-5}

Table S25: (Continued)

LJP006 MDAMB231 24H-geldanamycin-10	8/94	1.01×10^{-6}	2.32×10^{-5}
LJP005 BT20 24H-geldanamycin-0.37	8/96	1.18×10^{-6}	2.67×10^{-5}
LJP006 PC3 24H-geldanamycin-10	8/96	1.18×10^{-6}	2.67×10^{-5}
LJP005 BT20 24H-geldanamycin-1.11	7/67	1.21×10^{-6}	2.73×10^{-5}
LJP006 MCF10A 3H-geldanamycin-0.12	7/67	1.21×10^{-6}	2.72×10^{-5}
LJP005 HEPG2 24H-geldanamycin-1.11	9/131	1.29×10^{-6}	2.85×10^{-5}
LJP006 A375 24H-geldanamycin-3.33	9/131	1.29×10^{-6}	2.85×10^{-5}
LJP005 MCF10A 3H-geldanamycin-3.33	7/68	1.34×10^{-6}	2.96×10^{-5}
LJP005 MCF7 3H-geldanamycin-10	6/45	1.67×10^{-6}	3.56×10^{-5}
LJP006 HA1E 24H-geldanamycin-0.12	6/45	1.67×10^{-6}	3.56×10^{-5}
LJP005 HCC515 24H-geldanamycin-3.33	9/140	2.24×10^{-6}	4.54×10^{-5}
LJP006 HCC515 24H-geldanamycin-1.11	9/144	2.83×10^{-6}	5.51×10^{-5}
LJP006 LNCAP 24H-geldanamycin-3.33	9/163	7.79×10^{-6}	1.30×10^{-4}
LJP006 HME1 24H-geldanamycin-0.12	9/164	8.19×10^{-6}	1.37×10^{-4}
LJP006 MCF10A 3H-geldanamycin-1.11	7/89	8.26×10^{-6}	1.37×10^{-4}
LJP006 PC3 24H-geldanamycin-3.33	7/90	8.89×10^{-6}	1.46×10^{-4}
LJP005 SKBR3 24H-geldanamycin-10	7/92	1.03×10^{-5}	1.66×10^{-4}
LJP005 HS578T 3H-geldanamycin-0.37	5/36	1.04×10^{-5}	1.67×10^{-4}
LJP006 MCF7 3H-geldanamycin-1.11	5/38	1.37×10^{-5}	2.10×10^{-4}
LJP006 BT20 24H-geldanamycin-10	7/97	1.46×10^{-5}	2.24×10^{-4}
LJP005 SKBR3 24H-geldanamycin-0.12	6/69	2.10×10^{-5}	3.05×10^{-4}
LJP006 BT20 24H-geldanamycin-0.37	6/69	2.10×10^{-5}	3.04×10^{-4}
LJP006 HME1 3H-geldanamycin-1.11	5/42	2.25×10^{-5}	3.24×10^{-4}
LJP005 MCF10A 3H-geldanamycin-10	5/43	2.53×10^{-5}	3.59×10^{-4}
LJP005 MCF10A 3H-geldanamycin-1.11	6/72	2.68×10^{-5}	3.77×10^{-4}
LJP006 HCC515 24H-geldanamycin-3.33	7/110	3.31×10^{-5}	4.51×10^{-4}
LJP006 LNCAP 24H-geldanamycin-1.11	7/110	3.31×10^{-5}	4.51×10^{-4}
LJP006 A549 24H-geldanamycin-1.11	6/76	3.65×10^{-5}	4.88×10^{-4}
LJP006 HME1 24H-geldanamycin-0.37	8/154	3.90×10^{-5}	5.18×10^{-4}
LJP006 SKBR3 24H-geldanamycin-10	6/77	3.93×10^{-5}	5.19×10^{-4}
LJP005 A549 24H-geldanamycin-1.11	6/78	4.23×10^{-5}	5.52×10^{-4}
LJP005 MDAMB231 24H-geldanamycin-0.12	6/78	4.23×10^{-5}	5.51×10^{-4}
LJP006 A375 24H-geldanamycin-0.12	8/163	5.84×10^{-5}	7.25×10^{-4}
LJP006 HS578T 3H-geldanamycin-1.11	5/52	6.45×10^{-5}	7.82×10^{-4}
LJP005 A549 24H-geldanamycin-3.33	7/123	6.75×10^{-5}	8.18×10^{-4}
LJP006 MDAMB231 3H-geldanamycin-1.11	5/53	7.07×10^{-5}	8.48×10^{-4}
LJP005 BT20 24H-geldanamycin-0.04	6/87	7.83×10^{-5}	9.20×10^{-4}
LJP006 A549 24H-geldanamycin-3.33	6/87	7.83×10^{-5}	9.19×10^{-4}
LJP005 PC3 24H-geldanamycin-3.33	6/89	8.89×10^{-5}	1.02×10^{-3}
LJP006 HEPG2 24H-geldanamycin-10	6/94	1.20×10^{-4}	1.31×10^{-3}
LJP005 HS578T 3H-geldanamycin-1.11	4/32	1.28×10^{-4}	1.39×10^{-3}
LJP006 HME1 24H-geldanamycin-1.11	7/145	1.89×10^{-4}	1.92×10^{-3}
LJP005 HS578T 3H-geldanamycin-3.33	4/36	2.04×10^{-4}	2.06×10^{-3}
LJP005 MCF10A 24H-geldanamycin-10	5/67	2.17×10^{-4}	2.17×10^{-3}
LJP006 MDAMB231 3H-geldanamycin-0.12	3/16	2.75×10^{-4}	2.66×10^{-3}
LJP006 PC3 24H-geldanamycin-1.11	5/72	3.05×10^{-4}	2.90×10^{-3}
LJP005 HS578T 3H-geldanamycin-10	4/40	3.09×10^{-4}	2.93×10^{-3}
LJP005 BT20 24H-geldanamycin-3.33	5/73	3.25×10^{-4}	3.06×10^{-3}
LJP005 HCC515 24H-geldanamycin-1.11	6/113	3.29×10^{-4}	3.09×10^{-3}
LJP006 BT20 3H-geldanamycin-10	4/44	4.48×10^{-4}	3.98×10^{-3}
LJP006 HEPG2 24H-geldanamycin-0.37	4/44	4.48×10^{-4}	3.97×10^{-3}
LJP005 MDAMB231 24H-geldanamycin-1.11	4/46	5.31×10^{-4}	4.61×10^{-3}
LJP006 SKBR3 3H-geldanamycin-0.12	3/20	5.47×10^{-4}	4.71×10^{-3}
LJP006 LNCAP 24H-geldanamycin-10	7/173	5.51×10^{-4}	4.74×10^{-3}
LJP006 HT29 24H-geldanamycin-1.11	5/85	6.56×10^{-4}	5.47×10^{-3}
LJP005 SKBR3 3H-geldanamycin-0.04	4/49	6.77×10^{-4}	5.62×10^{-3}
LJP005 HS578T 3H-geldanamycin-0.04	3/22	7.30×10^{-4}	6.01×10^{-3}

Table S25: (Continued)

LJP006 SKBR3 3H-geldanamycin-1.11	4/51	7.89×10^{-4}	6.39×10^{-3}
LJP005 MCF10A 24H-geldanamycin-3.33	6/134	8.13×10^{-4}	6.56×10^{-3}
LJP005 BT20 24H-geldanamycin-10	4/52	8.49×10^{-4}	6.82×10^{-3}
LJP006 MCF10A 24H-geldanamycin-0.12	6/137	9.12×10^{-4}	7.26×10^{-3}
LJP005 SKBR3 3H-geldanamycin-3.33	4/53	9.12×10^{-4}	7.25×10^{-3}
LJP006 HS578T 3H-geldanamycin-3.33	4/53	9.12×10^{-4}	7.24×10^{-3}
LJP005 MDAMB231 24H-geldanamycin-0.37	4/54	9.79×10^{-4}	7.70×10^{-3}
CPC014 NPC 24H-geldanamycin-10.0	6/139	9.84×10^{-4}	7.71×10^{-3}
LJP006 HS578T 3H-geldanamycin-0.37	4/56	1.12×10^{-3}	8.60×10^{-3}
LJP006 MCF10A 24H-geldanamycin-0.37	6/144	1.18×10^{-3}	9.01×10^{-3}
LJP005 MCF10A 24H-geldanamycin-0.12	6/147	1.31×10^{-3}	9.80×10^{-3}
LJP006 MCF10A 24H-geldanamycin-0.04	5/102	1.49×10^{-3}	1.09×10^{-2}
LJP005 SKBR3 3H-geldanamycin-0.12	3/28	1.50×10^{-3}	1.09×10^{-2}
CPC018 A549 24H-geldanamycin-10.0	5/104	1.62×10^{-3}	1.17×10^{-2}
CPC009 MCF7 24H-geldanamycin-10.0	5/108	1.92×10^{-3}	1.35×10^{-2}
LJP005 MDAMB231 3H-geldanamycin-3.33	3/31	2.02×10^{-3}	1.40×10^{-2}
LJP005 MCF10A 24H-geldanamycin-1.11	5/110	2.08×10^{-3}	1.43×10^{-2}
LJP006 MCF7 24H-geldanamycin-0.04	3/33	2.42×10^{-3}	1.63×10^{-2}
LJP005 MDAMB231 3H-geldanamycin-1.11	3/34	2.64×10^{-3}	1.75×10^{-2}
LJP006 MDAMB231 3H-geldanamycin-3.33	3/34	2.64×10^{-3}	1.75×10^{-2}
LJP005 MCF10A 24H-geldanamycin-0.04	5/119	2.93×10^{-3}	1.90×10^{-2}
CPC006 SNUC4 6H-geldanamycin-10.0	4/75	3.30×10^{-3}	2.10×10^{-2}
LJP006 HT29 24H-geldanamycin-0.37	3/37	3.37×10^{-3}	2.13×10^{-2}
LJP005 MDAMB231 3H-geldanamycin-0.04	3/38	3.64×10^{-3}	2.27×10^{-2}
LJP005 MDAMB231 3H-geldanamycin-10	3/38	3.64×10^{-3}	2.27×10^{-2}
LJP006 MCF10A 24H-geldanamycin-1.11	5/129	4.14×10^{-3}	2.52×10^{-2}
LJP005 MCF7 24H-geldanamycin-1.11	5/130	4.27×10^{-3}	2.58×10^{-2}
LJP006 MCF10A 24H-geldanamycin-3.33	5/130	4.27×10^{-3}	2.58×10^{-2}
LJP006 HCC515 24H-geldanamycin-10	4/83	4.74×10^{-3}	2.81×10^{-2}
LJP006 HME1 3H-geldanamycin-0.12	3/42	4.83×10^{-3}	2.84×10^{-2}
LJP006 LNCAP 3H-geldanamycin-1.11	3/43	5.16×10^{-3}	2.99×10^{-2}
CPC006 NCIH1694 6H-geldanamycin-10.0	3/44	5.51×10^{-3}	3.17×10^{-2}
LJP006 HME1 3H-geldanamycin-0.37	3/44	5.51×10^{-3}	3.16×10^{-2}
LJP005 HS578T 24H-geldanamycin-0.37	4/88	5.83×10^{-3}	3.31×10^{-2}
CPC006 THP1 6H-geldanamycin-10.0	4/90	6.31×10^{-3}	3.51×10^{-2}
CPC013 A549 6H-geldanamycin-10.0	4/93	7.08×10^{-3}	3.84×10^{-2}
LJP005 PC3 24H-geldanamycin-1.11	4/93	7.08×10^{-3}	3.84×10^{-2}
CPC005 HT29 24H-geldanamycin-10.0	5/147	7.14×10^{-3}	3.87×10^{-2}
CPC004 A375 6H-geldanamycin-10.0	3/49	7.44×10^{-3}	4.01×10^{-2}
CPC004 VCAP 24H-geldanamycin-10.0	4/95	7.62×10^{-3}	4.07×10^{-2}
CPC016 MCF7 24H-geldanamycin-10.0	5/150	7.76×10^{-3}	4.14×10^{-2}
LJP005 HT29 24H-geldanamycin-3.33	5/150	7.76×10^{-3}	4.14×10^{-2}
CPC018 ASC 24H-geldanamycin-10.0	3/51	8.31×10^{-3}	4.37×10^{-2}
LJP006 BT20 24H-geldanamycin-0.04	3/51	8.31×10^{-3}	4.36×10^{-2}
CPC006 U937 6H-geldanamycin-10.0	4/98	8.49×10^{-3}	4.44×10^{-2}
LJP005 MDAMB231 3H-geldanamycin-0.37	3/52	8.77×10^{-3}	4.56×10^{-2}
CPC005 A549 24H-geldanamycin-10.0	5/156	9.11×10^{-3}	4.70×10^{-2}
LJP005 BT20 3H-geldanamycin-3.33	2/18	9.27×10^{-3}	4.75×10^{-2}

Table S26: Genes whose expression is altered by SARS-CoV-2-related viruses that significantly interact with the 163 genes selected by TD-based unsupervised FE and enriched by “Drug Perturbations from GEO up/down” in Enrichr

Term	Overlap	P-value	Adjusted P-value
Drug Perturbations from GEO up			
MK-886 CID 3651377 human GSE3202 sample 3193	54/368	3.90×10^{-53}	3.53×10^{-50}
fluticasone 5311101 human GSE15823 sample 3090	53/351	8.70×10^{-53}	3.94×10^{-50}
1-Naphthyl isothiocyanate 11080 rat GSE5509 sample 3568	50/301	7.71×10^{-52}	2.33×10^{-49}
quercetin 5280343 human GSE7259 sample 3416	50/327	6.03×10^{-50}	1.36×10^{-47}
N-METHYLFORMAMIDE 31254 rat GSE5509 sample 3570	46/283	4.37×10^{-47}	7.93×10^{-45}
NICKEL 935 human GSE6907 sample 3531	46/288	1.02×10^{-46}	1.54×10^{-44}
apratoxin A 6326668 human GSE2742 sample 3070	43/246	2.30×10^{-45}	2.98×10^{-43}
quercetin 5280343 human GSE7259 sample 3415	47/336	6.05×10^{-45}	6.85×10^{-43}
sapphyrin PCI-2050 (1.25 &frac{14}{M}) 9855235 human GSE6400 sample 3101	48/367	1.71×10^{-44}	1.72×10^{-42}
rosiglitazone DB00412 human GSE7035 sample 2810	43/281	9.52×10^{-43}	8.63×10^{-41}
Drug Perturbations from GEO down			
gatifloxacin 5379 human GSE9166 sample 2626	48/266	1.61×10^{-51}	1.46×10^{-48}
atorvastatin DB01076 human GSE2450 sample 2484	46/250	1.02×10^{-49}	4.62×10^{-47}
bexarotene DB00307 human GSE12791 sample 2681	46/253	1.84×10^{-49}	5.54×10^{-47}
clinafloxacin 60063 human GSE9166 sample 2625	55/470	1.30×10^{-48}	2.95×10^{-46}
motexafin gadolinium (12 h) DB05428 human GSE2189 sample 3127	48/320	1.89×10^{-47}	3.41×10^{-45}
BPDE 41322 human GSE19510 sample 3379	47/300	2.36×10^{-47}	3.55×10^{-45}
trovafloxacin 62959 human GSE9166 sample 2629	53/459	1.98×10^{-46}	2.55×10^{-44}
HYPOCHLOROUS ACID 24341 human GSE11630 sample 3199	40/204	2.85×10^{-44}	3.21×10^{-42}
trovafloxacin DB00685 human GSE9166 sample 3036	51/451	4.05×10^{-44}	4.06×10^{-42}
doxycycline DB00254 human GSE2624 sample 3077	48/391	3.82×10^{-43}	3.45×10^{-41}

Table S27: Genes whose expression is altered by SARS-CoV-2-related viruses that significantly interact with the 163 genes selected by TD-based unsupervised FE and enriched by “Drug Matrix” in Enrichr

Term	Overlap	P-value	Adjusted P-value
2-Amino-4-Nitrophenol-625 mg/kg in CMC-Rat-Kidney-1d-up	26/300	2.01×10^{-19}	1.59×10^{-15}
Allyl Alcohol-32 mg/kg in Saline-Rat-Liver-1d-up	25/291	1.30×10^{-18}	5.12×10^{-15}
Meloxicam-33 mg/kg in Corn Oil-Rat-Kidney-5d-up	23/261	1.96×10^{-17}	5.14×10^{-14}
Lipopolysaccharide E. Coli O55:B5-1.25 mg/kg in Saline-Rat-Kidney-1d-up	24/295	2.36×10^{-17}	4.64×10^{-14}
44'-Methylenedianiline-81 mg/kg in Corn Oil-Rat-Liver-3d-up	25/333	3.27×10^{-17}	5.16×10^{-14}
Gentamicin-40 mg/kg in Saline-Rat-Kidney-14d-up	24/309	6.83×10^{-17}	8.96×10^{-14}
Lead(IV) Acetate-600 mg/kg in Saline-Rat-Kidney-5d-up	24/309	6.83×10^{-17}	7.68×10^{-14}
Dibromochloromethane-325 mg/kg in CMC-Rat-Kidney-3d-up	24/312	8.51×10^{-17}	8.38×10^{-14}
Allopurinol-175 mg/kg in Corn Oil-Rat-Kidney-3d-up	24/329	2.84×10^{-16}	2.49×10^{-13}
Benzyl Acetate-1868 mg/kg in CMC-Rat-Kidney-3d-up	24/330	3.05×10^{-16}	2.40×10^{-13}

Table S28: List of *in silico* screened drugs [3] whose target genes were also enriched in the 163 genes selected by TD-based unsupervised FE.

Term	Overlap	P-value	Adjusted P-value
Drug Perturbations from GEO up			
doxycycline DB00254 human GSE2624 sample 3076	38/272	3.93×10^{-36}	1.32×10^{-34}
doxycycline DB00254 human GSE2624 sample 3075	28/242	2.49×10^{-24}	2.02×10^{-23}
doxycycline DB00254 human GSE2624 sample 3077	23/209	1.30×10^{-19}	6.43×10^{-19}
doxycycline DB00254 mouse GSE29848 sample 3208	25/291	1.30×10^{-18}	5.84×10^{-18}
doxycycline DB00254 mouse GSE29848 sample 3209	24/267	2.35×10^{-18}	1.03×10^{-17}
doxycycline DB00254 human GSE2624 sample 3074	16/175	1.07×10^{-12}	2.89×10^{-12}
doxycycline DB00254 mouse GSE29848 sample 3207	17/225	4.54×10^{-12}	1.16×10^{-11}
ascorbic acid 54670067 human GSE11919 sample 3190	15/313	4.42×10^{-8}	8.64×10^{-8}
isotretinoin DB00982 human GSE10432 sample 2772	19/308	8.45×10^{-12}	2.10×10^{-11}
isotretinoin 5282379 human GSE10433 sample 2498	10/245	3.39×10^{-5}	5.51×10^{-5}
pioglitazone DB01132 rat GSE21329 sample 2843	40/400	3.44×10^{-32}	7.08×10^{-31}
pioglitazone DB01132 rat GSE21329 sample 2842	20/349	8.84×10^{-12}	2.18×10^{-11}
pioglitazone 4829 mouse GSE1458 sample 2587	19/318	1.47×10^{-11}	3.55×10^{-11}
pioglitazone DB01132 rat GSE20219 sample 2794	18/292	3.13×10^{-11}	7.40×10^{-11}
pioglitazone DB01132 human GSE8157 sample 2796	13/331	3.36×10^{-6}	5.89×10^{-6}
pioglitazone DB01132 rat GSE21329 sample 2841	11/279	1.88×10^{-5}	3.11×10^{-5}
pioglitazone DB01132 rat GSE20219 sample 2795	9/330	1.58×10^{-3}	2.31×10^{-3}
Drug Perturbations from GEO down			
doxycycline DB00254 human GSE2624 sample 3077	48/391	3.82×10^{-43}	3.45×10^{-41}
doxycycline DB00254 human GSE2624 sample 3074	39/425	6.14×10^{-30}	9.09×10^{-29}
doxycycline DB00254 human GSE2624 sample 3076	30/328	5.30×10^{-23}	4.02×10^{-22}
doxycycline DB00254 human GSE2624 sample 3075	27/358	1.40×10^{-18}	6.83×10^{-18}
doxycycline DB00254 mouse GSE29848 sample 3207	21/375	3.98×10^{-12}	1.21×10^{-11}
doxycycline DB00254 mouse GSE29848 sample 3208	16/309	5.14×10^{-9}	1.21×10^{-8}
doxycycline DB00254 mouse GSE29848 sample 3209	14/333	6.21×10^{-7}	1.28×10^{-6}
ascorbic acid 54670067 human GSE11919 sample 3190	40/287	5.09×10^{-38}	1.84×10^{-36}
isotretinoin DB00982 human GSE10432 sample 2772	7/292	1.02×10^{-2}	1.57×10^{-2}
pioglitazone DB01132 rat GSE21329 sample 2841	43/321	3.57×10^{-40}	1.90×10^{-38}
pioglitazone 4829 mouse GSE1458 sample 2587	24/282	8.34×10^{-18}	3.77×10^{-17}
pioglitazone DB01132 rat GSE21329 sample 2842	18/251	2.50×10^{-12}	7.64×10^{-12}
pioglitazone DB01132 rat GSE20219 sample 2794	17/308	6.28×10^{-10}	1.62×10^{-9}
pioglitazone DB01132 human GSE8157 sample 2796	14/269	4.58×10^{-8}	1.02×10^{-7}
pioglitazone DB01132 rat GSE20219 sample 2795	12/270	2.29×10^{-6}	4.52×10^{-6}
pioglitazone DB01132 rat GSE21329 sample 2843	7/200	1.29×10^{-3}	2.14×10^{-3}
tibolone 444008 human GSE12446 sample 3204	30/313	1.34×10^{-23}	1.14×10^{-22}

Table S29: List of *in silico* screened drugs [2] whose target genes are also among the 163 genes selected by TD based unsupervised FE.

Term	Overlap	P-value	Adjusted P-value
Drug Perturbations from GEO up			
quercetin 5280343 human GSE7259 sample 3416	50/327	6.03×10^{-50}	1.36×10^{-47}
quercetin 5280343 human GSE7259 sample 3415	47/336	6.05×10^{-45}	6.85×10^{-43}
quercetin 5280343 rat GSE7479 sample 3409	38/394	5.73×10^{-30}	9.80×10^{-29}
quercetin 5280343 human GSE13899 sample 3182	19/307	7.99×10^{-12}	1.99×10^{-11}
quercetin DB04216 mouse GSE38136 sample 3436	17/297	3.59×10^{-10}	7.85×10^{-10}
quercetin DB04216 mouse GSE38141 sample 3435	16/280	1.25×10^{-9}	2.67×10^{-9}
quercetin DB04216 mouse GSE38136 sample 3438	15/254	2.69×10^{-9}	5.66×10^{-9}
quercetin DB04216 mouse GSE38067 sample 3440	13/227	4.62×10^{-8}	9.01×10^{-8}
quercetin DB04216 mouse GSE38136 sample 3437	16/472	1.66×10^{-6}	2.96×10^{-6}
quercetin DB04216 mouse GSE38067 sample 3441	7/114	4.16×10^{-5}	6.73×10^{-5}
quercetin DB04216 mouse GSE4262 sample 3428	11/360	1.85×10^{-4}	2.86×10^{-4}
quercetin DB04216 mouse GSE4262 sample 3429	8/229	5.94×10^{-4}	8.90×10^{-4}
quercetin DB04216 mouse GSE4262 sample 3427	9/360	2.84×10^{-3}	4.06×10^{-3}
quercetin DB04216 mouse GSE4262 sample 3433	8/323	5.09×10^{-3}	7.12×10^{-3}
quercetin DB04216 human GSE15162 sample 3444	7/323	1.69×10^{-2}	2.25×10^{-2}
quercetin DB04216 mouse GSE4262 sample 3434	7/324	1.71×10^{-2}	2.27×10^{-2}
Drug Perturbations from GEO down			
quercetin DB04216 mouse GSE38067 sample 3441	35/486	2.68×10^{-23}	2.11×10^{-22}
quercetin 5280343 human GSE13899 sample 3182	28/293	5.05×10^{-22}	3.40×10^{-21}
quercetin 5280343 rat GSE7479 sample 3409	16/206	1.31×10^{-11}	3.90×10^{-11}
quercetin DB04216 mouse GSE38141 sample 3435	17/320	1.13×10^{-9}	2.79×10^{-9}
quercetin DB04216 mouse GSE38136 sample 3436	16/303	3.89×10^{-9}	9.26×10^{-9}
quercetin DB04216 mouse GSE38067 sample 3440	15/373	4.27×10^{-7}	8.83×10^{-7}
quercetin 5280343 human GSE7259 sample 3415	12/264	1.81×10^{-6}	3.59×10^{-6}
quercetin DB04216 mouse GSE38136 sample 3438	13/346	5.44×10^{-6}	1.05×10^{-5}
quercetin DB04216 mouse GSE38136 sample 3437	8/128	1.02×10^{-5}	1.92×10^{-5}
quercetin DB04216 mouse GSE4262 sample 3430	11/312	5.22×10^{-5}	9.45×10^{-5}
quercetin DB04216 mouse GSE4262 sample 3431	10/348	5.87×10^{-4}	9.96×10^{-4}
quercetin 5280343 human GSE7259 sample 3416	8/273	1.83×10^{-3}	3.02×10^{-3}
quercetin DB04216 mouse GSE4262 sample 3428	7/240	3.59×10^{-3}	5.74×10^{-3}
quercetin DB04216 mouse GSE4262 sample 3429	7/371	3.27×10^{-2}	4.73×10^{-2}

Table S30: Five Drugs ranked within top 10 in the previous study but not in the present study in “DrugMatrix” category in Enrichr. They were still significantly enriched for the selected 163 genes. If there were more than ten hits, they were omitted.

Term	Overlap	P-value	Adjusted P-value
Primaquine-45 mg/kg in CMC-Rat-Liver-5d-up	18/315	1.09×10^{-10}	3.34×10^{-9}
Primaquine-45 mg/kg in CMC-Rat-Liver-1d-up	15/337	1.16×10^{-7}	7.37×10^{-7}
Primaquine-45 mg/kg in CMC-Rat-Liver-3d-up	14/316	3.31×10^{-7}	1.66×10^{-6}
Primaquine-45 mg/kg in CMC-Rat-Liver-3d-dn	9/284	5.51×10^{-4}	8.62×10^{-4}
Primaquine-45 mg/kg in CMC-Rat-Liver-5d-dn	7/285	8.98×10^{-3}	1.06×10^{-2}
Cytarabine-487 mg/kg in Saline-Rat-Bone marrow-1d-up	17/326	1.49×10^{-9}	2.47×10^{-8}
Cytarabine-23 mg/kg in Saline-Rat-Liver-0.25d-up	16/313	6.17×10^{-9}	7.17×10^{-8}
Cytarabine-487 mg/kg in Saline-Rat-Liver-1d-dn	14/237	9.28×10^{-9}	9.81×10^{-8}
Cytarabine-23 mg/kg in Saline-Rat-Bone marrow-0.25d-up	17/385	1.79×10^{-8}	1.66×10^{-7}
Cytarabine-23 mg/kg in Saline-Rat-Spleen-3d-up	15/299	2.42×10^{-8}	2.12×10^{-7}
Cytarabine-487 mg/kg in Saline-Rat-Liver-5d-dn	14/291	1.21×10^{-7}	7.59×10^{-7}
Cytarabine-23 mg/kg in Saline-Rat-Liver-5d-dn	14/307	2.33×10^{-7}	1.26×10^{-6}
Cytarabine-487 mg/kg in Saline-Rat-Kidney-5d-dn	14/319	3.71×10^{-7}	1.84×10^{-6}
Cytarabine-487 mg/kg in Saline-Rat-Kidney-3d-dn	14/327	4.99×10^{-7}	2.35×10^{-6}
Cytarabine-487 mg/kg in Saline-Rat-Spleen-1d-up	14/329	5.37×10^{-7}	2.49×10^{-6}
Cytarabine-23 mg/kg in Saline-Rat-Spleen-0.25d-up	14/344	9.14×10^{-7}	3.83×10^{-6}
(additional 31 hits with less significance are omitted)			
Pyrogallol-1000 mg/kg in Water-Rat-Liver-5d-up	14/304	2.07×10^{-7}	1.14×10^{-6}
Pyrogallol-1000 mg/kg in Water-Rat-Liver-1d-up	15/409	1.35×10^{-6}	5.23×10^{-6}
Pyrogallol-1000 mg/kg in Water-Rat-Liver-5d-dn	12/296	5.88×10^{-6}	1.76×10^{-5}
Pyrogallol-1000 mg/kg in Water-Rat-Liver-3d-up	13/349	5.97×10^{-6}	1.78×10^{-5}
Pyrogallol-1000 mg/kg in Water-Rat-Liver-3d-dn	7/251	4.59×10^{-3}	5.69×10^{-3}
Pyrogallol-1000 mg/kg in Water-Rat-Liver-1d-dn	5/191	2.03×10^{-2}	2.26×10^{-2}
Catechol-195 mg/kg in Saline-Rat-Liver-0.25d-up	19/290	2.94×10^{-12}	2.41×10^{-10}
Catechol-40 mg/kg in Saline-Rat-Liver-0.25d-up	19/305	7.13×10^{-12}	4.16×10^{-10}
Catechol-195 mg/kg in Saline-Rat-Bone marrow-1d-dn	16/305	4.27×10^{-9}	5.49×10^{-8}
Catechol-40 mg/kg in Saline-Rat-Kidney-0.25d-dn	16/319	8.08×10^{-9}	8.82×10^{-8}
Catechol-40 mg/kg in Saline-Rat-Kidney-3d-dn	15/294	1.93×10^{-8}	1.77×10^{-7}
Catechol-40 mg/kg in Saline-Rat-Bone marrow-0.25d-dn	15/306	3.28×10^{-8}	2.67×10^{-7}
Catechol-40 mg/kg in Saline-Rat-Bone marrow-1d-dn	15/307	3.43×10^{-8}	2.76×10^{-7}
Catechol-195 mg/kg in Saline-Rat-Spleen-1d-up	15/320	5.91×10^{-8}	4.31×10^{-7}
Catechol-195 mg/kg in Saline-Rat-Kidney-5d-dn	14/281	7.87×10^{-8}	5.39×10^{-7}
Catechol-195 mg/kg in Saline-Rat-Bone marrow-5d-dn	14/310	2.62×10^{-7}	1.38×10^{-6}
(additional 27 hits with less significance are omitted)			
Neomycin-877 mg/kg in Corn Oil-Rat-Kidney-1d-dn	14/264	3.62×10^{-8}	2.88×10^{-7}
Neomycin-877 mg/kg in Corn Oil-Rat-Liver-5d-up	14/323	4.31×10^{-7}	2.08×10^{-6}
Neomycin-56 mg/kg in Corn Oil-Rat-Kidney-0.25d-dn	12/256	1.31×10^{-6}	5.12×10^{-6}
Neomycin-877 mg/kg in Corn Oil-Rat-Kidney-3d-up	13/311	1.69×10^{-6}	6.23×10^{-6}
Neomycin-56 mg/kg in Corn Oil-Rat-Kidney-5d-dn	12/270	2.29×10^{-6}	7.99×10^{-6}
Neomycin-56 mg/kg in Corn Oil-Rat-Liver-5d-up	12/279	3.21×10^{-6}	1.06×10^{-5}
Neomycin-56 mg/kg in Corn Oil-Rat-Kidney-3d-dn	11/233	3.43×10^{-6}	1.12×10^{-5}
Neomycin-877 mg/kg in Corn Oil-Rat-Kidney-3d-dn	12/289	4.60×10^{-6}	1.44×10^{-5}
Neomycin-877 mg/kg in Corn Oil-Rat-Liver-0.25d-dn	12/296	5.88×10^{-6}	1.76×10^{-5}
Neomycin-56 mg/kg in Corn Oil-Rat-Liver-3d-dn	12/309	9.07×10^{-6}	2.50×10^{-5}
(additional 20 hits with less significance are omitted)			

Table S31: Four Drugs ranked within top 10 in the previous study but not in the present study in “Drug Pert from GEO up/down” category in Enrichr. They were still significantly enriched toward the selected 163 genes.

Term	Overlap	P-value	Adjusted P-value
Drug Perturbations from GEO up			
fenretinide 5288209 rat GSE3952 sample 3561	35/397	2.98×10^{-26}	2.81×10^{-25}
fenretinide 5288209 rat GSE3952 sample 3559	7/160	3.45×10^{-4}	5.30×10^{-4}
pioglitazone DB01132 rat GSE21329 sample 2843	40/400	3.44×10^{-32}	7.08×10^{-31}
pioglitazone DB01132 rat GSE21329 sample 2842	20/349	8.84×10^{-12}	2.18×10^{-11}
pioglitazone 4829 mouse GSE1458 sample 2587	19/318	1.47×10^{-11}	3.55×10^{-11}
pioglitazone DB01132 rat GSE20219 sample 2794	18/292	3.13×10^{-11}	7.40×10^{-11}
pioglitazone DB01132 human GSE8157 sample 2796	13/331	3.36×10^{-6}	5.89×10^{-6}
pioglitazone DB01132 rat GSE21329 sample 2841	11/279	1.88×10^{-5}	3.11×10^{-5}
pioglitazone DB01132 rat GSE20219 sample 2795	9/330	1.58×10^{-3}	2.31×10^{-3}
decitabine DB01262 human GSE29077 sample 2546	31/243	3.22×10^{-28}	3.99×10^{-27}
decitabine DB01262 human GSE29077 sample 2538	31/263	3.84×10^{-27}	4.05×10^{-26}
decitabine DB01262 human GSE9118 sample 2703	31/271	9.77×10^{-27}	9.73×10^{-26}
decitabine DB01262 human GSE29077 sample 2539	26/279	3.22×10^{-20}	1.69×10^{-19}
decitabine 451668 mouse GSE4768 sample 3103	25/251	3.55×10^{-20}	1.85×10^{-19}
decitabine 451668 mouse GSE4768 sample 3105	26/287	6.59×10^{-20}	3.36×10^{-19}
decitabine DB01262 human GSE29077 sample 2540	19/300	5.34×10^{-12}	1.35×10^{-11}
decitabine DB01262 human GSE29077 sample 2547	19/304	6.73×10^{-12}	1.69×10^{-11}
decitabine DB01262 human GSE29077 sample 2548	19/316	1.32×10^{-11}	3.21×10^{-11}
decitabine 451668 mouse GSE4768 sample 3108	12/374	5.91×10^{-5}	9.43×10^{-5}
trogliatone DB00197 rat GSE21329 sample 2833	36/408	5.13×10^{-27}	5.34×10^{-26}
trogliatone DB00197 rat GSE21329 sample 2834	28/198	8.28×10^{-27}	8.42×10^{-26}
trogliatone 5591 mouse GSE1458 sample 2589	26/305	3.05×10^{-19}	1.45×10^{-18}
trogliatone DB00197 rat GSE21329 sample 2832	10/245	3.39×10^{-5}	5.52×10^{-5}
Drug Perturbations from GEO down			
fenretinide 5288209 rat GSE3952 sample 3559	38/440	3.49×10^{-28}	4.56×10^{-27}
fenretinide 5288209 rat GSE3952 sample 3561	22/203	1.18×10^{-18}	5.84×10^{-18}
pioglitazone DB01132 rat GSE21329 sample 2841	43/321	3.57×10^{-40}	1.90×10^{-38}
pioglitazone 4829 mouse GSE1458 sample 2587	24/282	8.34×10^{-18}	3.77×10^{-17}
pioglitazone DB01132 rat GSE21329 sample 2842	18/251	2.50×10^{-12}	7.64×10^{-12}
pioglitazone DB01132 rat GSE20219 sample 2794	17/308	6.28×10^{-10}	1.62×10^{-9}
pioglitazone DB01132 human GSE8157 sample 2796	14/269	4.58×10^{-8}	1.02×10^{-7}
pioglitazone DB01132 rat GSE20219 sample 2795	12/270	2.29×10^{-6}	4.52×10^{-6}
pioglitazone DB01132 rat GSE21329 sample 2843	7/200	1.29×10^{-3}	2.14×10^{-3}
decitabine DB01262 human GSE29077 sample 2540	44/300	6.35×10^{-43}	5.21×10^{-41}
decitabine DB01262 human GSE29077 sample 2539	41/321	2.15×10^{-37}	7.19×10^{-36}
decitabine 451668 mouse GSE4768 sample 3108	35/226	6.98×10^{-35}	1.91×10^{-33}
decitabine DB01262 human GSE29077 sample 2538	37/337	3.06×10^{-31}	5.22×10^{-30}
decitabine DB01262 human GSE9118 sample 2703	29/329	8.47×10^{-22}	5.54×10^{-21}
decitabine DB01262 human GSE29077 sample 2548	25/284	7.22×10^{-19}	3.62×10^{-18}
decitabine DB01262 human GSE29077 sample 2547	21/296	4.08×10^{-14}	1.42×10^{-13}
decitabine 451668 mouse GSE4768 sample 3105	20/313	1.20×10^{-12}	3.76×10^{-12}
decitabine 451668 mouse GSE4768 sample 3103	16/349	2.85×10^{-8}	6.43×10^{-8}
decitabine DB01262 human GSE29077 sample 2546	14/357	1.42×10^{-6}	2.85×10^{-6}
trogliatone DB00197 rat GSE21329 sample 2832	37/355	2.09×10^{-30}	3.31×10^{-29}
trogliatone 5591 mouse GSE1458 sample 2589	17/295	3.24×10^{-10}	8.55×10^{-10}
trogliatone DB00197 rat GSE21329 sample 2834	16/402	1.98×10^{-7}	4.20×10^{-7}
trogliatone DB00197 rat GSE21329 sample 2833	11/192	5.16×10^{-7}	1.07×10^{-6}

Table S32: The number of human proteins reported to interact with listed SARS-CoV-2 proteins [1]

SARS-CoV2 E	SARS-CoV2 M	SARS-CoV2 N
859	1245	584
SARS-CoV2 nsp1	SARS-CoV2 nsp10	SARS-CoV2 nsp11
592	443	925
SARS-CoV2 nsp12	SARS-CoV2 nsp13	SARS-CoV2 nsp14
620	994	475
SARS-CoV2 nsp15	SARS-CoV2 nsp2	SARS-CoV2 nsp4
559	918	952
SARS-CoV2 nsp5	SARS-CoV2 nsp5_C145A	SARS-CoV2 nsp6
540	365	1019
SARS-CoV2 nsp7	SARS-CoV2 nsp8	SARS-CoV2 nsp9
893	1017	684
SARS-CoV2 orf10	SARS-CoV2 orf3a	SARS-CoV2 orf3b
872	974	753
SARS-CoV2 orf6	SARS-CoV2 orf7a	SARS-CoV2 orf8
779	971	1106
SARS-CoV2 orf9b	SARS-CoV2 orf9c	SARS-CoV2 Spike
732	1462	820

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Table S33: Coincidence between 163 genes and human proteins whose numbers are reported in Table S32

SARS-CoV-2 proteins	P values	Odds Ratio
SARS-CoV2 E	6.55×10^{-27}	10.16
SARS-CoV2 M	1.38×10^{-26}	8.42
SARS-CoV2 N	4.61×10^{-24}	11.43
SARS-CoV2 nsp1	1.06×10^{-20}	10.00
SARS-CoV2 nsp10	3.40×10^{-20}	11.52
SARS-CoV2 nsp11	1.13×10^{-29}	10.66
SARS-CoV2 nsp12	4.87×10^{-20}	9.48
SARS-CoV2 nsp13	6.04×10^{-33}	11.17
SARS-CoV2 nsp14	1.75×10^{-22}	12.05
SARS-CoV2 nsp15	1.85×10^{-20}	10.23
SARS-CoV2 nsp2	4.81×10^{-33}	11.79
SARS-CoV2 nsp4	5.79×10^{-29}	10.26
SARS-CoV2 nsp5	3.78×10^{-25}	12.36
SARS-CoV2 nsp5_C145A	3.75×10^{-17}	11.39
SARS-CoV2 nsp6	9.47×10^{-26}	9.00
SARS-CoV2 nsp7	1.93×10^{-29}	10.81
SARS-CoV2 nsp8	1.11×10^{-29}	10.14
SARS-CoV2 nsp9	5.54×10^{-29}	12.24
SARS-CoV2 orf10	5.29×10^{-34}	12.37
SARS-CoV2 orf3a	2.06×10^{-28}	9.95
SARS-CoV2 orf3b	1.89×10^{-29}	11.80
SARS-CoV2 orf6	8.81×10^{-26}	10.37
SARS-CoV2 orf7a	1.69×10^{-28}	10.00
SARS-CoV2 orf8	5.94×10^{-28}	9.25
SARS-CoV2 orf9b	6.54×10^{-30}	12.12
SARS-CoV2 orf9c	1.11×10^{-28}	8.35
SARS-CoV2 Spike	8.22×10^{-26}	10.08

Table S34: Number of experiments associated with adjusted P -values in various Enrichr categories for the drugs identified in another study[]

	DrugMatrix	GEO down	GEO up	LINCS down	LINCS up
Mestranol	6				
Methotrexate	40	2			
Fluorouracil	4	4	6	1	
Hexestrol	4				
Mercaptopurine	17				
Paroxetine	10			1	
Vinblastine	17			1	3
Phenylbutazone	6				
Naloxone	5				
Hydralazine	14				
Vinorelbine	13				1
Carvedilol	20				1
Colchicine	13		1		
Amitriptyline	13			1	
Epinephrine	17				
Dactinomycin	6	2	1	5	1
Hydrocortisone	21				
Melatonin	7				
Methyltestosterone	6				
Omeprazole	20				
Testosterone	12		1		
Oxymetholone	5				
Progesterone	20	2	2		
Permethrin		1			
Mesalazine		1			
Menadione		1	1		3
Stanolone		1	2		
Methotrexate			1		
Sirolimus				47	50
Cladribine				2	1
Regorafenib				9	14
Temsirolimus				1	
Quinacrine				1	3