

Supplementary information

Single cell analysis of ACE2 expression reveals the potential targets for 2019-nCov

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Supplementary Figures

Cell type (lung)	ACE2	Cells	% of cells expressed
Alveolar_Type1	3	764	0.3927
Alveolar_Type2	79	4676	1.6895
B_cells	0	1551	0.0000
Blood_vessel	2	2694	0.0742
Ciliated	2	466	0.4292
DC_1	0	163	0.0000
DC_2	0	1605	0.0000
DC_Monocyte_Dividing	0	242	0.0000
DC_activated	0	122	0.0000
DC_plasmacytoid	0	46	0.0000
Fibroblast	13	4624	0.2811
Lymph_vessel	0	337	0.0000
Macrophage_Dividing	0	94	0.0000
Macrophage_MARCOneg	0	937	0.0000
Macrophage_MARCOpos	0	4512	0.0000
Mast_cells	0	2911	0.0000
Monocyte	0	6067	0.0000
Muscle_cells	1	839	0.1192
NK	0	10418	0.0000
NK_Dividing	0	130	0.0000
Plasma_cells	1	287	0.3484
T_CD4	0	7211	0.0000
T_CD8_CytT	1	5755	0.0174
T_cells_Dividing	0	88	0.0000
T_regulatory	0	481	0.0000

Figure 1: ACE2 expression in the lung.

Cell type (mature)	ACE2	Cells	% of cells expressed
Ascending vasa recta endothelium	1	300	0.3333
B cell	1	975	0.1026
CD4 T cell	12	2435	0.4928
CD8 T cell	7	991	0.7064
Connecting tubule	1	157	0.6369
Descending vasa recta endothelium	2	192	1.0417
Distinct proximal tubule 1	12	65	18.4615
Distinct proximal tubule 2	14	151	9.2715
Epithelial progenitor cell	4	238	1.6807
Fibroblast	0	23	0.0000
Glomerular endothelium	1	622	0.1608
Indistinct intercalated cell	3	429	0.6993
MNP-a/classical monocyte derived	3	555	0.5405
MNP-b/non-classical monocyte derived	2	375	0.5333
MNP-c/dendritic cell	1	220	0.4545
MNP-d/Tissue macrophage	0	87	0.0000
Mast cell	0	41	0.0000
Myofibroblast	0	122	0.0000
NK cell	13	1322	0.9834
NKT cell	4	733	0.5457
Neutrophil	0	46	0.0000
Pelvic epithelium	3	136	2.2059
Peritubular capillary endothelium 1	1	666	0.1502
Peritubular capillary endothelium 2	2	185	1.0811
Plasmacytoid dendritic cell	0	23	0.0000
Podocyte	3	126	2.3810
Principal cell	0	88	0.0000
Proliferating Proximal Tubule	21	348	6.0345
Proximal tubule	2325	27497	8.4555
Thick ascending limb of Loop of Henle	5	675	0.7407
Transitional urothelium	0	45	0.0000
Type A intercalated cell	3	275	1.0909
Type B intercalated cell	3	125	2.4000

Figure 2: ACE2 expression in the mature kidney.

Cell type (fetal)	ACE2	Cells	% of cells expressed
B cell	0	258	0.0000
CD4 T cell	0	440	0.0000
CD8 T cell	0	73	0.0000
CNT/PC - proximal UB	6	575	1.0435
Cap mesenchyme	7	3557	0.1968
Distal S shaped body	1	554	0.1805
Distal renal vesicle	1	494	0.2024
Endothelium	2	1221	0.1638
Erythroid	0	35	0.0000
Fibroblast 1	1	673	0.1486
Fibroblast 2	0	371	0.0000
Innate like lymphocyte	0	177	0.0000
Loop of Henle	1	121	0.8264
Macrophage 1	3	1543	0.1944
Macrophage 2	5	648	0.7716
Mast cells	0	85	0.0000
Medial S shaped body	76	742	10.2426
Megakaryocyte	1	124	0.8065
Monocyte	5	783	0.6386
Myofibroblast 1	8	1742	0.4592
Myofibroblast 2	0	440	0.0000
NK cell	1	707	0.1414
Neuron	0	25	0.0000
Neutrophil	0	229	0.0000
Pelvic epithelium - distal UB	1	170	0.5882
Podocyte	0	278	0.0000
Proliferating B cell	1	128	0.7813
Proliferating NK cell	0	67	0.0000
Proliferating cDC2	1	224	0.4464
Proliferating cap mesenchyme	7	1560	0.4487
Proliferating distal renal vesicle	5	725	0.6897
Proliferating fibroblast	0	66	0.0000
Proliferating macrophage	1	359	0.2786
Proliferating monocyte	0	149	0.0000
Proliferating myofibroblast	3	470	0.6383
Proliferating stroma progenitor	2	717	0.2789
Proximal S shaped body	3	622	0.4823
Proximal UB	3	405	0.7407
Proximal renal vesicle	0	280	0.0000
Proximal tubule	298	707	42.1499
Stroma progenitor	7	3841	0.1822
cDC1	0	83	0.0000
cDC2	2	646	0.3096
pDC	0	89	0.0000

Figure 3: ACE2 expression in the fetal kidney.

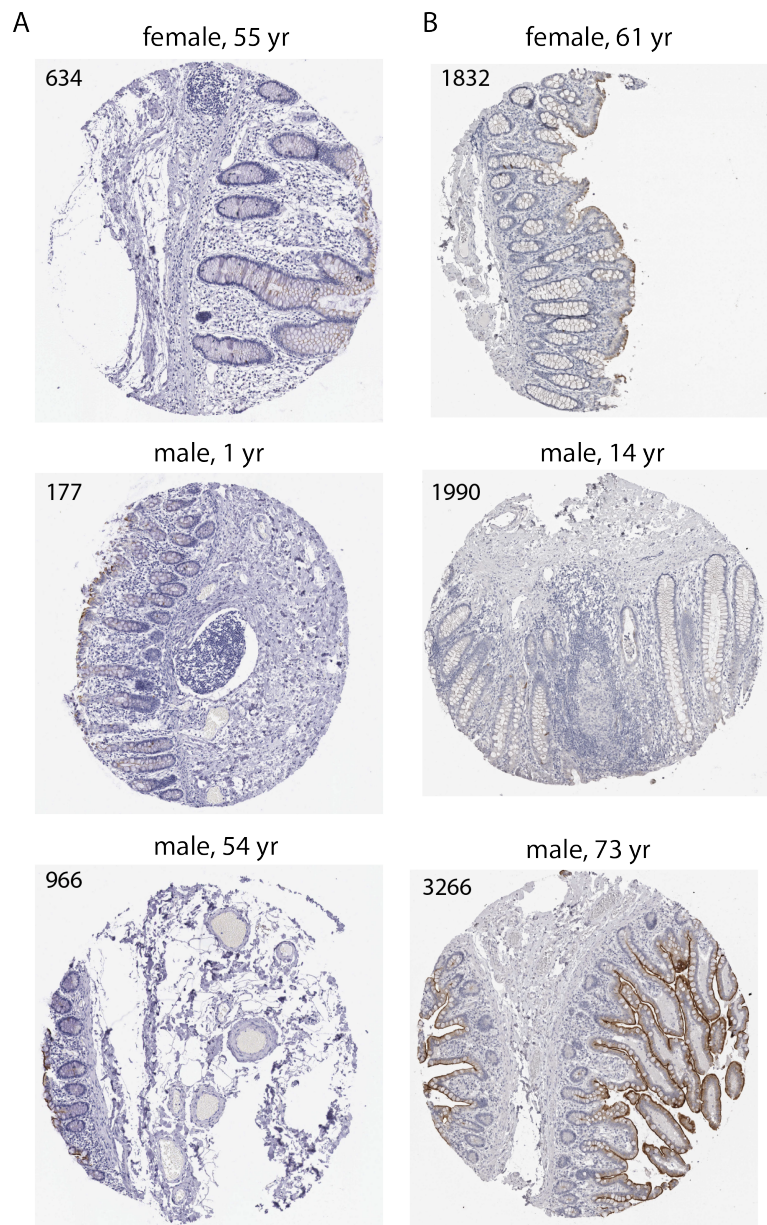


Figure 4: ACE2 expression in the colon. Normal colon tissues were stained with antibody HPA000288 (A) and CAB026174 (B). 25%-75% glandular cells displayed high intensity. Images are from the human protein atlas.

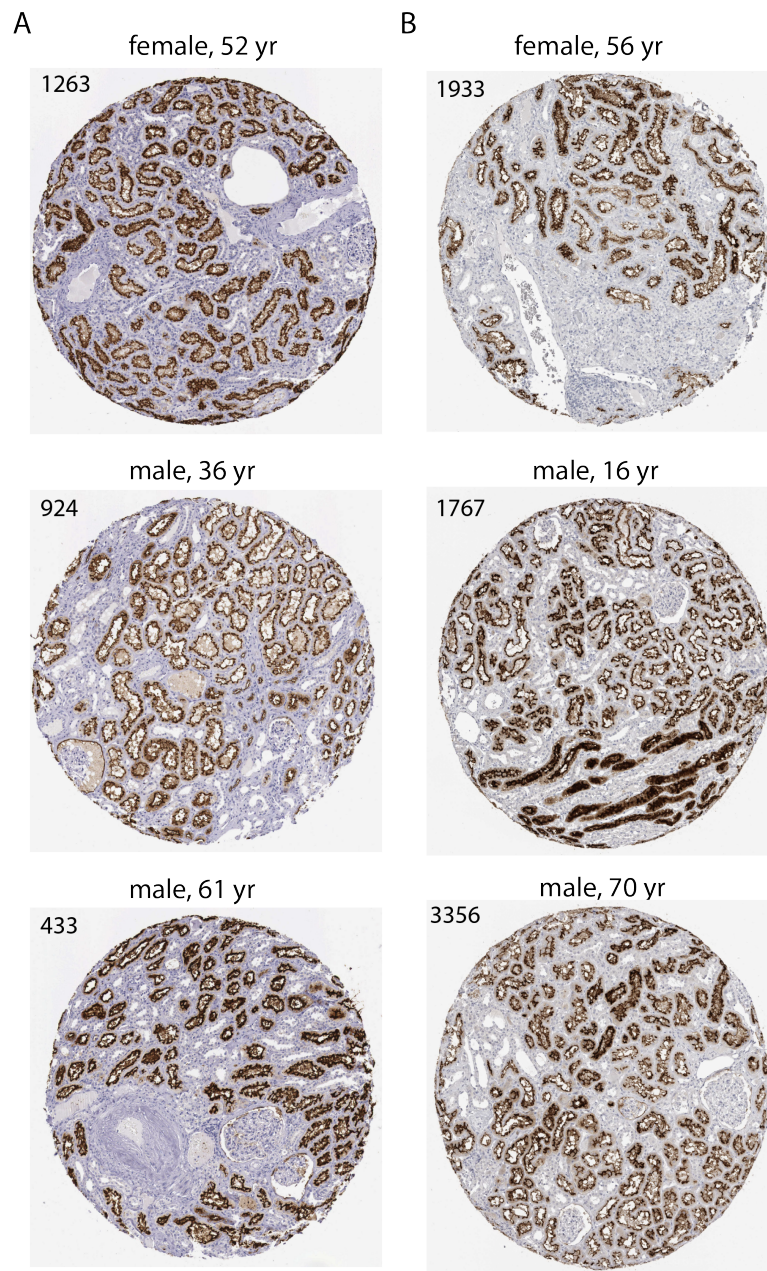


Figure 5: ACE2 expression at the protein level. Normal kidney tissues were stained with antibody HPA000288 (A) and CAB026174 (B). 25%-75% cells in tubules displayed high intensity. Images are from the human protein atlas.