

## Supplemental Table 1. Differentially Expressed Genes in Nonobstructive and Obstructive HCM Across Cell Types

Filtered Differentially Expressed Genes Over Space	Cell Type
1 ABCA10	Leukocyte
2 ABCA6	Leukocyte, Neuronal
3 ABCA8	Leukocyte, Neuronal
4 AC01080.5	Cardiomyocyte, Neuronal
5 ACTA1	Fibroblast, Dendritic, Leukocyte
6 ADH1B	Fibroblast, Leukocyte
7 AEBP1	Leukocyte
8 AKAP13	Neuronal
9 AUCDA	Cardiomyocyte
10 APOD	Leukocyte
11 APOE	Leukocyte
12 APO1	Endothelial
13 ATP5B	Cardiomyocyte
14 ATP5E	Cardiomyocyte
15 ATP5G3	Cardiomyocyte
16 ATP5I	Cardiomyocyte
17 ATP5J	Cardiomyocyte
18 ATP5J2	Cardiomyocyte
19 ATP5L	Cardiomyocyte
20 ATP5D	Cardiomyocyte
21 ATP5F1	Cardiomyocyte
22 ATM	Cardiomyocyte, Endothelial, Neuronal
23 C1orf72	Cardiomyocyte
24 C1orf56	Neuronal
25 CLR	Leukocyte
26 C15	Leukocyte
27 CCDC80	Leukocyte
28 CDS5	Fibroblast, Leukocyte
29 CD74	Dendritic
30 CDC42SE1	Neuronal
31 CTD	Leukocyte
32 CLU	Leukocyte
33 CMYA5	Cardiomyocyte
34 COL1A1	Leukocyte
35 COL1A2	Leukocyte
36 COL3A1	Leukocyte
37 COWA2	Neuronal
38 CD68C	Cardiomyocyte, Leukocyte
39 CDX41	Cardiomyocyte
40 COX7C	Cardiomyocyte, Neuronal
41 CRYAB	Cardiomyocyte, Neuronal
42 CDR3	Cardiomyocyte, Leukocyte, Neuronal
43 DCN	Fibroblast, Leukocyte, Neuronal
44 DES	Cardiomyocyte
45 SMC10	Cardiomyocyte
46 FABP4	Endothelial
47 FAM174A	Neuronal
48 FBNL1	Leukocyte
49 FBNL2	Leukocyte
50 FBNI	Leukocyte
51 FN1	Fibroblast, Leukocyte
52 OSN	Fibroblast, Leukocyte, Neuronal
53 HES3	Fibroblast, Leukocyte
54 HLA-B	Endothelial
55 HLA-DPA1	Dendritic
56 HLA-DPB1	Dendritic
57 HLA-DQA1	Dendritic
58 HLA-DQB1	Dendritic
59 HLA-DRA	Dendritic
60 HLA-DRB1	Dendritic
61 HLA-DRB5	Dendritic
62 HRNP12	Neuronal
63 HDX2	Cardiomyocyte
64 GFBP6	Fibroblast, Leukocyte
65 GFBP7	Pericyte, Leukocyte
66 ITM2A	Endothelial
67 ITM2B	Fibroblast, Leukocyte
68 IFFO	Cardiomyocyte
69 ITBP4	Leukocyte
70 LUM	Fibroblast, Leukocyte, Neuronal
71 MALAT1	Cardiomyocyte, Fibroblast, Dendritic, Neuronal
72 MEG3	Leukocyte, Smooth Muscle, Neuronal
73 MFAP4	Fibroblast, Leukocyte
74 MFAP5	Leukocyte
75 MMP2	Leukocyte
76 SSM5A	Leukocyte
77 MYH11	Smooth Muscle
78 MYH7B	Cardiomyocyte, Pericyte, Neuronal
79 MYL23A	Cardiomyocyte, Neuronal
80 MYL2	Cardiomyocyte, Fibroblast, Endothelial, Pericyte, Dendritic, Leukocyte
81 MYL3	Neuronal
82 NDUF1	Cardiomyocyte
83 NDUF44	Cardiomyocyte, Fibroblast, Leukocyte, Neuronal
84 NDUAF1	Cardiomyocyte, Pericyte, Leukocyte, Neuronal
85 NPEP	Cardiomyocyte
86 PALLD	Neuronal
87 PLD4E2	Fibroblast, Leukocyte
88 PLAGL1	Neuronal
89 PLEKH2	Neuronal
90 PLEK	Leukocyte
91 PRG4	Fibroblast, Leukocyte
92 EGSS	Endothelial, Pericyte, Neuronal
93 SCY2A	Neuronal
94 SERPINE2	Leukocyte
95 SERPINE1	Fibroblast, Leukocyte
96 SERPINE3	Leukocyte
97 SLMAP	Cardiomyocyte, Pericyte, Neuronal
98 SOD3	Leukocyte
99 SCBS2	Cardiomyocyte, Pericyte, Neuronal
100 SPARCL1	Leukocyte
101 THES4	Leukocyte
102 TIMP1	Fibroblast, Leukocyte
103 TIMP3	Leukocyte
104 THSD10	Endothelial
105 TMS64X	Cardiomyocyte, Neuronal
106 TNNE3	Cardiomyocyte, Fibroblast, Leukocyte
107 TNXB	Leukocyte
108 TPM1	Dendritic
109 TTN	Neuronal
110 UCC8B	Cardiomyocyte
111 UDCRQ	Cardiomyocyte
112 USMG5	Cardiomyocyte
113 VCAN	Leukocyte
114 VSG4	Dendritic
115 ZNF106	Cardiomyocyte
116 ZNF411	Neuronal

### Neuro-Fibro communication

Non-obstructive					Obstructive				
Pair Name	Ligand	Receptor	L cell	R cell	Pair Name	Ligand	Receptor	L cell	R cell
CALM1_RYR2	CALM1	RYR2	Neuro	Fibro	COL6A2_ITGB1	COL6A2	ITGB1	Neuro	Fibro
COL1A2_CD36	COL1A2	CD36	Neuro	Fibro	LGALS1_ITGB1	LGALS1	ITGB1	Neuro	Fibro
COL1A2_ITGB1	COL1A2	ITGB1	Neuro	Fibro	LUM_ITGB1	LUM	ITGB1	Neuro	Fibro
COL4A1_ITGB1	COL4A1	ITGB1	Neuro	Fibro	TIMP1_CD63	TIMP1	CD63	Neuro	Fibro
COL6A1_ITGB1	COL6A1	ITGB1	Neuro	Fibro					
COL6A2_ITGB1	COL6A2	ITGB1	Neuro	Fibro					
FN1_ITGB1	FN1	ITGB1	Neuro	Fibro					
LAMA2_ITGB1	LAMA2	ITGB1	Neuro	Fibro					
LGALS1_ITGB1	LGALS1	ITGB1	Neuro	Fibro					
LUM_ITGB1	LUM	ITGB1	Neuro	Fibro					
S100A1_RYR2	S100A1	RYR2	Neuro	Fibro					
TGM2_ITGB1	TGM2	ITGB1	Neuro	Fibro					

### Fibro-Leuko communication

Non-obstructive					Obstructive				
Pair Name	Ligand	Receptor	L cell	R cell	Pair Name	Ligand	Receptor	L cell	R cell
CALM1_RYR2	CALM1	RYR2	Fibro	Leuko	APP_CD74	APP	CD74	Fibro	Leuko
COL1A2_CD36	COL1A2	CD36	Fibro	Leuko	COL1A2_CD36	COL1A2	CD36	Fibro	Leuko
COL3A1_ITGB1	COL3A1	ITGB1	Fibro	Leuko	TIMP1_CD63	TIMP1	CD63	Fibro	Leuko
COL4A1_ITGB1	COL4A1	ITGB1	Fibro	Leuko					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro	Leuko					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro	Leuko					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro	Leuko					
FN1_ITGB1	FN1	ITGB1	Fibro	Leuko					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro	Leuko					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro	Leuko					
LUM_ITGB1	LUM	ITGB1	Fibro	Leuko					
S100A1_RYR2	S100A1	RYR2	Fibro	Leuko					
TIMP1_CD63	TIMP1	CD63	Fibro	Leuko					

### Fibro-DC communication

Non-obstructive					Obstructive				
Pair Name	Ligand	Receptor	L cell	R cell	Pair Name	Ligand	Receptor	L cell	R cell
CALM1_RYR2	CALM1	RYR2	Fibro	DC	APP_CD74	APP	CD74	Fibro	DC
COL1A2_CD36	COL1A2	CD36	Fibro	DC	COL1A2_CD36	COL1A2	CD36	Fibro	DC
COL1A2_ITGB1	COL1A2	ITGB1	Fibro	DC	LGALS1_PTPRC	LGALS1	PTPRC	Fibro	DC
COL3A1_ITGB1	COL3A1	ITGB1	Fibro	DC	TIMP1_CD63	TIMP1	CD63	Fibro	DC
COL4A1_ITGB1	COL4A1	ITGB1	Fibro	DC					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro	DC					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro	DC					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro	DC					
FN1_ITGB1	FN1	ITGB1	Fibro	DC					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro	DC					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro	DC					
LUM_ITGB1	LUM	ITGB1	Fibro	DC					
S100A1_RYR2	S100A1	RYR2	Fibro	DC					
TIMP1_CD63	TIMP1	CD63	Fibro	DC					

### Neuro-DC communication

Non-obstructive					Obstructive				
Pair Name	Ligand	Receptor	L cell	R cell	Pair Name	Ligand	Receptor	L cell	R cell
CALM1_RYR2	CALM1	RYR2	Neuro	DC	LGALS1_PTPRC	LGALS1	PTPRC	Neuro	DC
COL1A2_CD36	COL1A2	CD36	Neuro	DC	TIMP1_CD63	TIMP1	CD63	Neuro	DC
COL1A2_ITGB1	COL1A2	ITGB1	Neuro	DC					
COL4A1_ITGB1	COL4A1	ITGB1	Neuro	DC					
COL6A1_ITGB1	COL6A1	ITGB1	Neuro	DC					
COL6A2_ITGB1	COL6A2	ITGB1	Neuro	DC					
FN1_ITGB1	FN1	ITGB1	Neuro	DC					
LAMA2_ITGB1	LAMA2	ITGB1	Neuro	DC					
LGALS1_ITGB1	LGALS1	ITGB1	Neuro	DC					
LUM_ITGB1	LUM	ITGB1	Neuro	DC					
S100A1_RYR2	S100A1	RYR2	Neuro	DC					
TGM2_ITGB1	TGM2	ITGB1	Neuro	DC					

Supplemental Figure 1. Reduced Ligand-Receptor Pair Gene Expression In Obstructive vs. Nonobstructive HCM

### EC-EC communication

Non-obstructive					Obstructive				
Pair_Name	Ligand	Receptor	L_cell	R_cell	Pair_Name	Ligand	Receptor	L_cell	R_cell
CALM1_RYR2	CALM1	RYR2	EC	EC	CALM1_AQP1	CALM1	AQP1	EC	EC
FN1_ITGB1	FN1	ITGB1	EC	EC	CALM2_AQP1	CALM2	AQP1	EC	EC
LGALS1_ITGB1	LGALS1	ITGB1	EC	EC	COL6A2_ITGB1	COL6A2	ITGB1	EC	EC
S100A1_RYR2	S100A1	RYR2	EC	EC	FN1_ITGB1	FN1	ITGB1	EC	EC
					HSPG2_ITGB1	HSPG2	ITGB1	EC	EC
					LGALS1_ITGB1	LGALS1	ITGB1	EC	EC
					LUM_ITGB1	LUM	ITGB1	EC	EC
					TIMP1_CD63	TIMP1	CD63	EC	EC

### EC-PC communication

Non-obstructive					Obstructive				
Pair_Name	Ligand	Receptor	L_cell	R_cell	Pair_Name	Ligand	Receptor	L_cell	R_cell
CALM1_RYR2	CALM1	RYR2	EC	PC	CALM1_RYR2	CALM1	RYR2	EC	PC
FN1_ITGB1	FN1	ITGB1	EC	PC	COL6A2_ITGB1	COL6A2	ITGB1	EC	PC
LGALS1_ITGB1	LGALS1	ITGB1	EC	PC	FN1_ITGB1	FN1	ITGB1	EC	PC
S100A1_RYR2	S100A1	RYR2	EC	PC	HSPG2_ITGB1	HSPG2	ITGB1	EC	PC
					LGALS1_ITGB1	LGALS1	ITGB1	EC	PC
					LUM_ITGB1	LUM	ITGB1	EC	PC
					S100A1_RYR2	S100A1	RYR2	EC	PC
					TIMP1_CD63	TIMP1	CD63	EC	PC

### EC-CM communication

Non-obstructive					Obstructive				
Pair_Name	Ligand	Receptor	L_cell	R_cell	Pair_Name	Ligand	Receptor	L_cell	R_cell
CALM1_PDE1C	CALM1	PDE1C	EC	CM	CALM1_RYR2	CALM1	RYR2	EC	CM
CALM1_RYR2	CALM1	RYR2	EC	CM	COL6A2_ITGB1	COL6A2	ITGB1	EC	CM
FN1_ITGB1	FN1	ITGB1	EC	CM	FN1_ITGB1	FN1	ITGB1	EC	CM
LGALS1_ITGB1	LGALS1	ITGB1	EC	CM	HSPG2_ITGB1	HSPG2	ITGB1	EC	CM
S100A1_RYR2	S100A1	RYR2	EC	CM	LGALS1_ITGB1	LGALS1	ITGB1	EC	CM
					LUM_ITGB1	LUM	ITGB1	EC	CM
					S100A1_RYR2	S100A1	RYR2	EC	CM
					TIMP1_CD63	TIMP1	CD63	EC	CM

### EC-Neuro communication

Non-obstructive					Obstructive				
Pair_Name	Ligand	Receptor	L_cell	R_cell	Pair_Name	Ligand	Receptor	L_cell	R_cell
CALM1_PDE1C	CALM1	PDE1C	EC	Neuro	CALM1_INSR	CALM1	INSR	EC	Neuro
CALM1_RYR2	CALM1	RYR2	EC	Neuro	CALM1_RYR2	CALM1	RYR2	EC	Neuro
FN1_ITGAV	FN1	ITGAV	EC	Neuro	CALM2_INSR	CALM2	INSR	EC	Neuro
FN1_ITGB1	FN1	ITGB1	EC	Neuro	COL6A2_ITGB1	COL6A2	ITGB1	EC	Neuro
HLA-B_CANX	HLA-B	CANX	EC	Neuro	FN1_ITGB1	FN1	ITGB1	EC	Neuro
LGALS1_ITGB1	LGALS1	ITGB1	EC	Neuro	HSPG2_ITGB1	HSPG2	ITGB1	EC	Neuro
S100A1_RYR2	S100A1	RYR2	EC	Neuro	LGALS1_ITGB1	LGALS1	ITGB1	EC	Neuro
					LUM_ITGB1	LUM	ITGB1	EC	Neuro
					S100A1_RYR2	S100A1	RYR2	EC	Neuro
					TIMP1_CD63	TIMP1	CD63	EC	Neuro

Supplemental Figure 2. Increased Ligand-Receptor Pair Gene Expression In Obstructive vs. Nonobstructive HCM

Non-obstructive					Obstructive				
Pair_Name	Ligand	Receptor	L_cell	R_cell	Pair_Name	Ligand	Receptor	L_cell	R_cell
CALM1_RYR2	CALM1	RYR2	Fibro 2	Fibro 1	COL1A1_CD36	COL1A1	CD36	Fibro 2	Fibro 1
COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 1	COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 1
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 2	Fibro 1	TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 1
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 2	Fibro 1	COL1A1_CD36	COL1A1	CD36	Fibro 2	Fibro 4
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 2	Fibro 1	COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 4
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 2	Fibro 1	TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 4
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 2	Fibro 1	COL1A1_CD36	COL1A1	CD36	Fibro 2	Fibro 5
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 2	Fibro 1	COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 5
FN1_ITGB1	FN1	ITGB1	Fibro 2	Fibro 1	TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 5
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 2	Fibro 1	APP_CD74	APP	CD74	Fibro 2	Leuko
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 2	Fibro 1	COL1A1_CD36	COL1A1	CD36	Fibro 2	Leuko
LUM_ITGB1	LUM	ITGB1	Fibro 2	Fibro 1	COL1A2_CD36	COL1A2	CD36	Fibro 2	Leuko
S100A1_RYR2	S100A1	RYR2	Fibro 2	Fibro 1	TIMP1_CD63	TIMP1	CD63	Fibro 2	Leuko
TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 1	COL1A2_CD36	COL1A2	CD36	Fibro 3	Fibro 1
TIMP2_ITGB1	TIMP2	ITGB1	Fibro 2	Fibro 1	TIMP1_CD63	TIMP1	CD63	Fibro 3	Fibro 1
VCAN_ITGB1	VCAN	ITGB1	Fibro 2	Fibro 1	COL1A2_CD36	COL1A2	CD36	Fibro 3	Fibro 4
CALM1_RYR2	CALM1	RYR2	Fibro 2	Fibro 4	TIMP1_CD63	TIMP1	CD63	Fibro 3	Fibro 4
COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 4	COL1A2_CD36	COL1A2	CD36	Fibro 3	Fibro 5
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 2	Fibro 4	TIMP1_CD63	TIMP1	CD63	Fibro 3	Fibro 5
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 2	Fibro 4	COL1A2_CD36	COL1A2	CD36	Fibro 3	Leuko
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 2	Fibro 4	TIMP1_CD63	TIMP1	CD63	Fibro 3	Leuko
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 2	Fibro 4					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 2	Fibro 4					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 2	Fibro 4					
FN1_ITGB1	FN1	ITGB1	Fibro 2	Fibro 4					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 2	Fibro 4					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 2	Fibro 4					
LUM_ITGB1	LUM	ITGB1	Fibro 2	Fibro 4					
S100A1_RYR2	S100A1	RYR2	Fibro 2	Fibro 4					
TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 4					
TIMP2_ITGB1	TIMP2	ITGB1	Fibro 2	Fibro 4					
VCAN_ITGB1	VCAN	ITGB1	Fibro 2	Fibro 4					
CALM1_RYR2	CALM1	RYR2	Fibro 2	Fibro 5					
COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 5					
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 2	Fibro 5					
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 2	Fibro 5					
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 2	Fibro 5					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 2	Fibro 5					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 2	Fibro 5					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 2	Fibro 5					
FN1_ITGB1	FN1	ITGB1	Fibro 2	Fibro 5					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 2	Fibro 5					
LAMA2_RPSA	LAMA2	RPSA	Fibro 2	Fibro 5					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 2	Fibro 5					
LUM_ITGB1	LUM	ITGB1	Fibro 2	Fibro 5					
S100A1_RYR2	S100A1	RYR2	Fibro 2	Fibro 5					
TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 5					
TIMP2_ITGB1	TIMP2	ITGB1	Fibro 2	Fibro 5					
VCAN_ITGB1	VCAN	ITGB1	Fibro 2	Fibro 5					
CALM1_RYR2	CALM1	RYR2	Fibro 2	Leuko					
COL1A2_CD36	COL1A2	CD36	Fibro 2	Leuko					
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 2	Leuko					
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 2	Leuko					
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 2	Leuko					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 2	Leuko					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 2	Leuko					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 2	Leuko					
FN1_ITGB1	FN1	ITGB1	Fibro 2	Leuko					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 2	Leuko					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 2	Leuko					
LUM_ITGB1	LUM	ITGB1	Fibro 2	Leuko					
S100A1_RYR2	S100A1	RYR2	Fibro 2	Leuko					
TIMP1_CD63	TIMP1	CD63	Fibro 2	Leuko					
TIMP2_ITGB1	TIMP2	ITGB1	Fibro 2	Leuko					
VCAN_ITGB1	VCAN	ITGB1	Fibro 2	Leuko					
CALM1_RYR2	CALM1	RYR2	Fibro 2	Fibro 2					
COL1A2_CD36	COL1A2	CD36	Fibro 3	Fibro 2					
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 3	Fibro 2					
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 3	Fibro 2					
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 3	Fibro 2					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 3	Fibro 2					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 3	Fibro 2					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 3	Fibro 2					
FN1_ITGB1	FN1	ITGB1	Fibro 3	Fibro 2					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 3	Fibro 2					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 3	Fibro 2					
LUM_ITGB1	LUM	ITGB1	Fibro 3	Fibro 2					
S100A1_RYR2	S100A1	RYR2	Fibro 3	Fibro 2					
TIMP1_CD63	TIMP1	CD63	Fibro 3	Fibro 2					
CALM1_RYR2	CALM1	RYR2	Fibro 3	Fibro 4					
COL1A2_CD36	COL1A2	CD36	Fibro 3	Fibro 4					
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 3	Fibro 4					
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 3	Fibro 4					
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 3	Fibro 4					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 3	Fibro 4					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 3	Fibro 4					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 3	Fibro 4					
FN1_ITGB1	FN1	ITGB1	Fibro 3	Fibro 4					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 3	Fibro 4					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 3	Fibro 4					
LUM_ITGB1	LUM	ITGB1	Fibro 3	Fibro 4					
S100A1_RYR2	S100A1	RYR2	Fibro 3	Fibro 4					
TIMP1_CD63	TIMP1	CD63	Fibro 3	Fibro 4					
CALM1_RYR2	CALM1	RYR2	Fibro 3	Fibro 5					
COL1A2_CD36	COL1A2	CD36	Fibro 3	Fibro 5					
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 3	Fibro 5					
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 3	Fibro 5					
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 3	Fibro 5					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 3	Fibro 5					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 3	Fibro 5					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 3	Fibro 5					
FN1_ITGB1	FN1	ITGB1	Fibro 3	Fibro 5					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 3	Fibro 5					
LAMA2_RPSA	LAMA2	RPSA	Fibro 3	Fibro 5					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 3	Fibro 5					
LUM_ITGB1	LUM	ITGB1	Fibro 3	Fibro 5					
S100A1_RYR2	S100A1	RYR2	Fibro 3	Fibro 5					
TIMP1_CD63	TIMP1	CD63	Fibro 3	Fibro 5					
CALM1_RYR2	CALM1	RYR2	Fibro 3	Leuko					
COL1A2_CD36	COL1A2	CD36	Fibro 3	Leuko					
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 3	Leuko					
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 3	Leuko					
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 3	Leuko					
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 3	Leuko					
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 3	Leuko					
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 3	Leuko					
FN1_ITGB1	FN1	ITGB1	Fibro 3	Leuko					
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 3	Leuko					
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 3	Leuko					
LUM_ITGB1	LUM	ITGB1	Fibro 3	Leuko					
S100A1_RYR2	S100A1	RYR2	Fibro 3	Leuko					
TIMP1_CD63	TIMP1	CD63	Fibro 3	Leuko					

Supplemental Figure 3. Reduced Fibroblast Subtype Interactome Ligand-Receptor Pair Gene Expression in Obstructive vs. Nonobstructive HCM

Non-obstructive					Obstructive				
Pair-Name	Ligand	Receptor	L_cell	R_cell	Pair-Name	Ligand	Receptor	L_cell	R_cell
CALM1_RYR2	CALM1	RYR2	CM 10	DC	LGALS1_PTPRC	LGALS1	PTPRC	CM 10	DC
COL1A2_CD36	COL1A2	CD36	CM 10	DC	TMMP1_CDE3	TMMP1	CDE3	CM 10	DC
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	DC	TMMP1_CDE3	TMMP1	CDE3	CM 10	Leuko
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	DC	LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 4
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	DC	LUM_ITGB1	LUM	ITGB1	CM 10	CM 4
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	DC	S100A1_RYR2	S100A1	RYR2	CM 10	CM 4
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	DC	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 4
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	DC	CALM2_CACNA1C	CALM2	CACNA1C	CM 10	CM 5
FN1_ITGB1	FN1	ITGB1	CM 10	DC	CALM2_INSR	CALM2	INSR	CM 10	CM 5
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	DC	CALM2_PDE1C	CALM2	PDE1C	CM 10	CM 5
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	DC	LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 5
LUM_ITGB1	LUM	ITGB1	CM 10	DC	LUM_ITGB1	LUM	ITGB1	CM 10	CM 5
NF1_CD74	NF1	CD74	CM 10	DC	S100A1_RYR2	S100A1	RYR2	CM 10	CM 5
S100A1_RYR2	S100A1	RYR2	CM 10	DC	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 5
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	DC	LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 8
TMMP1_CDE3	TMMP1	CDE3	CM 10	DC	LUM_ITGB1	LUM	ITGB1	CM 10	CM 8
CALM1_RYR2	CALM1	RYR2	CM 10	Leuko	S100A1_RYR2	S100A1	RYR2	CM 10	CM 8
COL1A2_CD36	COL1A2	CD36	CM 10	Leuko	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 8
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	Leuko	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 8
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	Leuko	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 12
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	Leuko	CALM2_CACNA1C	CALM2	CACNA1C	CM 10	CM 13
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	Leuko	CALM2_INSR	CALM2	INSR	CM 10	CM 13
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	Leuko	CALM2_PDE1C	CALM2	PDE1C	CM 10	CM 13
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	Leuko	LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 13
FN1_ITGB1	FN1	ITGB1	CM 10	Leuko	LUM_ITGB1	LUM	ITGB1	CM 10	CM 13
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	Leuko	S100A1_RYR2	S100A1	RYR2	CM 10	CM 13
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	Leuko	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 13
LUM_ITGB1	LUM	ITGB1	CM 10	Leuko	TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 14
S100A1_RYR2	S100A1	RYR2	CM 10	Leuko					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	Leuko					
TMMP1_CDE3	TMMP1	CDE3	CM 10	Leuko					
CALM1_CACNA1C	CALM1	CACNA1C	CM 10	CM 4					
CALM1_PDE1C	CALM1	PDE1C	CM 10	CM 4					
CALM1_RYR2	CALM1	RYR2	CM 10	CM 4					
CALM2_CACNA1C	CALM2	CACNA1C	CM 10	CM 4					
CALM2_PDE1C	CALM2	PDE1C	CM 10	CM 4					
COL1A2_CD36	COL1A2	CD36	CM 10	CM 4					
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	CM 4					
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	CM 4					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 4					
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	CM 4					
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	CM 4					
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	CM 4					
FN1_ITGB1	FN1	ITGB1	CM 10	CM 4					
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	CM 4					
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 4					
LUM_ITGB1	LUM	ITGB1	CM 10	CM 4					
S100A1_RYR2	S100A1	RYR2	CM 10	CM 4					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	CM 4					
CALM1_CACNA1C	CALM1	CACNA1C	CM 10	CM 5					
CALM1_INSR	CALM1	INSR	CM 10	CM 5					
CALM1_PDE1C	CALM1	PDE1C	CM 10	CM 5					
CALM1_RYR2	CALM1	RYR2	CM 10	CM 5					
CALM2_CACNA1C	CALM2	CACNA1C	CM 10	CM 5					
CALM2_INSR	CALM2	INSR	CM 10	CM 5					
CALM2_PDE1C	CALM2	PDE1C	CM 10	CM 5					
COL1A2_CD36	COL1A2	CD36	CM 10	CM 5					
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	CM 5					
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	CM 5					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 5					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 5					
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	CM 5					
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	CM 5					
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	CM 5					
FN1_ITGB1	FN1	ITGB1	CM 10	CM 5					
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	CM 5					
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 5					
LUM_ITGB1	LUM	ITGB1	CM 10	CM 5					
MFGE8_ITGAV	MFGE8	ITGAV	CM 10	CM 5					
S100A1_RYR2	S100A1	RYR2	CM 10	CM 5					
SORBS1_INSR	SORBS1	INSR	CM 10	CM 5					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	CM 5					
TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 5					
CALM1_CACNA1C	CALM1	CACNA1C	CM 10	CM 8					
CALM1_PDE1C	CALM1	PDE1C	CM 10	CM 8					
CALM1_RYR2	CALM1	RYR2	CM 10	CM 8					
CALM2_CACNA1C	CALM2	CACNA1C	CM 10	CM 8					
CALM2_PDE1C	CALM2	PDE1C	CM 10	CM 8					
COL1A2_CD36	COL1A2	CD36	CM 10	CM 8					
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	CM 8					
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	CM 8					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 8					
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	CM 8					
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	CM 8					
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	CM 8					
FN1_ITGB1	FN1	ITGB1	CM 10	CM 8					
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	CM 8					
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 8					
LUM_ITGB1	LUM	ITGB1	CM 10	CM 8					
S100A1_RYR2	S100A1	RYR2	CM 10	CM 8					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	CM 8					
TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 8					
CALM1_RYR2	CALM1	RYR2	CM 10	CM 12					
COL1A2_CD36	COL1A2	CD36	CM 10	CM 12					
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	CM 12					
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	CM 12					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 12					
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	CM 12					
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	CM 12					
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	CM 12					
FN1_ITGB1	FN1	ITGB1	CM 10	CM 12					
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	CM 12					
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 12					
LUM_ITGB1	LUM	ITGB1	CM 10	CM 12					
S100A1_RYR2	S100A1	RYR2	CM 10	CM 12					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	CM 12					
TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 12					
CALM1_RYR2	CALM1	RYR2	CM 10	CM 13					
COL1A2_CD36	COL1A2	CD36	CM 10	CM 13					
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	CM 13					
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	CM 13					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 13					
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	CM 13					
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	CM 13					
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	CM 13					
FN1_ITGB1	FN1	ITGB1	CM 10	CM 13					
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	CM 13					
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 13					
LUM_ITGB1	LUM	ITGB1	CM 10	CM 13					
S100A1_RYR2	S100A1	RYR2	CM 10	CM 13					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	CM 13					
TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 13					
CALM1_RYR2	CALM1	RYR2	CM 10	CM 14					
COL1A2_CD36	COL1A2	CD36	CM 10	CM 14					
COL1A2_ITGB1	COL1A2	ITGB1	CM 10	CM 14					
COL3A1_ITGB1	COL3A1	ITGB1	CM 10	CM 14					
COL4A1_ITGB1	COL4A1	ITGB1	CM 10	CM 14					
COL6A1_ITGB1	COL6A1	ITGB1	CM 10	CM 14					
COL6A2_ITGB1	COL6A2	ITGB1	CM 10	CM 14					
COL6A3_ITGB1	COL6A3	ITGB1	CM 10	CM 14					
FN1_ITGB1	FN1	ITGB1	CM 10	CM 14					
LAMA2_ITGB1	LAMA2	ITGB1	CM 10	CM 14					
LAMA2_RPSA	LAMA2	RPSA	CM 10	CM 14					
LGALS1_ITGB1	LGALS1	ITGB1	CM 10	CM 14					
LUM_ITGB1	LUM	ITGB1	CM 10	CM 14					
S100A1_RYR2	S100A1	RYR2	CM 10	CM 14					
TMGM2_ITGB1	TMGM2	ITGB1	CM 10	CM 14					
TMMP1_CDE3	TMMP1	CDE3	CM 10	CM 14					

Supplemental Figure 4. Reduced Cardiomyocyte Subtype Interactome Ligand-Receptor Pair Gene Expression in Obstructive vs. Nonobstructive HCM

Non-obstructive					Obstructive				
Pair-Name	Ligand	Receptor	L_cell	R_cell	Pair-Name	Ligand	Receptor	L_cell	R_cell
CALM1_CACNA1C	CALM1	CACNA1C	CM9	CM7	CALM1_INSR	CALM1	INSR	CM9	CM7
CALM1_PDE1C	CALM1	PDE1C	CM9	CM7	CALM1_PDE1C	CALM1	PDE1C	CM9	CM7
CALM1_RYR2	CALM1	RYR2	CM9	CM7	CALM1_RYR2	CALM1	RYR2	CM9	CM7
LAMA2_ITGB1	LAMA2	ITGB1	CM9	CM7	CALM2_INSR	CALM2	INSR	CM9	CM7
LGALS1_ITGB1	LGALS1	ITGB1	CM9	CM7	CALM2_PDE1C	CALM2	PDE1C	CM9	CM7
S100A1_RYR2	S100A1	RYR2	CM9	CM7	COL6A2_ITGB1	COL6A2	ITGB1	CM9	CM7
					LAMA2_ITGB1	LAMA2	ITGB1	CM9	CM7
CALM1_CACNA1C	CALM1	CACNA1C	CM9	CM9	LGALS1_ITGB1	LGALS1	ITGB1	CM9	CM7
CALM1_PDE1C	CALM1	PDE1C	CM9	CM9	LUM_ITGB1	LUM	ITGB1	CM9	CM7
CALM1_RYR2	CALM1	RYR2	CM9	CM9	S100A1_RYR2	S100A1	RYR2	CM9	CM7
LAMA2_ITGB1	LAMA2	ITGB1	CM9	CM9	SORBS1_INSR	SORBS1	INSR	CM9	CM7
LGALS1_ITGB1	LGALS1	ITGB1	CM9	CM9	TIMP1_CD63	TIMP1	CD63	CM9	CM7
S100A1_RYR2	S100A1	RYR2	CM9	CM9	VEGFA_ITGB1	VEGFA	ITGB1	CM9	CM7
CALM1_CACNA1C	CALM1	CACNA1C	CM9	CM13	CALM1_CACNA1C	CALM1	CACNA1C	CM9	CM9
CALM1_PDE1C	CALM1	PDE1C	CM9	CM13	CALM1_INSR	CALM1	INSR	CM9	CM9
CALM1_RYR2	CALM1	RYR2	CM9	CM13	CALM1_PDE1C	CALM1	PDE1C	CM9	CM9
LAMA2_ITGB1	LAMA2	ITGB1	CM9	CM13	CALM1_RYR2	CALM1	RYR2	CM9	CM9
LAMA2_RPSA	LAMA2	RPSA	CM9	CM13	CALM2_CACNA1C	CALM2	CACNA1C	CM9	CM9
LGALS1_ITGB1	LGALS1	ITGB1	CM9	CM13	CALM2_INSR	CALM2	INSR	CM9	CM9
MFG8_ITGAV	MFG8	ITGAV	CM9	CM13	CALM2_PDE1C	CALM2	PDE1C	CM9	CM9
S100A1_RYR2	S100A1	RYR2	CM9	CM13	COL6A2_ITGB1	COL6A2	ITGB1	CM9	CM9
					LAMA2_ITGB1	LAMA2	ITGB1	CM9	CM9
					LGALS1_ITGB1	LGALS1	ITGB1	CM9	CM9
					LUM_ITGB1	LUM	ITGB1	CM9	CM9
					S100A1_RYR2	S100A1	RYR2	CM9	CM9
					SORBS1_INSR	SORBS1	INSR	CM9	CM9
					TIMP1_CD63	TIMP1	CD63	CM9	CM9
					VEGFA_ITGB1	VEGFA	ITGB1	CM9	CM9
					VEGFA_NRP1	VEGFA	NRP1	CM9	CM9
					CALM1_CACNA1C	CALM1	CACNA1C	CM9	CM13
					CALM1_INSR	CALM1	INSR	CM9	CM13
					CALM1_PDE1C	CALM1	PDE1C	CM9	CM13
					CALM1_RYR2	CALM1	RYR2	CM9	CM13
					CALM2_CACNA1C	CALM2	CACNA1C	CM9	CM13
					CALM2_INSR	CALM2	INSR	CM9	CM13
					CALM2_PDE1C	CALM2	PDE1C	CM9	CM13
					COL6A2_ITGB1	COL6A2	ITGB1	CM9	CM13
					CYR61_CAV1	CYR61	CAV1	CM9	CM13
					LAMA2_ITGB1	LAMA2	ITGB1	CM9	CM13
					LGALS1_ITGB1	LGALS1	ITGB1	CM9	CM13
					LUM_ITGB1	LUM	ITGB1	CM9	CM13
					S100A1_RYR2	S100A1	RYR2	CM9	CM13
					SORBS1_INSR	SORBS1	INSR	CM9	CM13
					TIMP1_CD63	TIMP1	CD63	CM9	CM13
					VEGFA_ITGB1	VEGFA	ITGB1	CM9	CM13
					VEGFA_NRP1	VEGFA	NRP1	CM9	CM13

Supplemental Figure 5. Increased Cardiomyocyte Subtype Interactome Ligand-Receptor Pair Gene Expression in Obstructive vs. Nonobstructive HCM



Non-obstructive					Obstructive				
Pair-Name	Ligand	Receptor	L_cell	R_cell	Pair-Name	Ligand	Receptor	L_cell	R_cell
CALM1_RYR2	CALM1	RYR2	Fibro 2	Fibro 2	TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 1
COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 2	APP_LRP1	APP	LRP1	Fibro 2	Fibro 2
COL1A2_ITGB1	COL1A2	ITGB1	Fibro 2	Fibro 2	COL1A1_CD36	COL1A1	CD36	Fibro 2	Fibro 2
COL3A1_ITGB1	COL3A1	ITGB1	Fibro 2	Fibro 2	COL1A1_ITGB1	COL1A1	ITGB1	Fibro 2	Fibro 2
COL4A1_ITGB1	COL4A1	ITGB1	Fibro 2	Fibro 2	COL1A2_CD36	COL1A2	CD36	Fibro 2	Fibro 2
COL6A1_ITGB1	COL6A1	ITGB1	Fibro 2	Fibro 2	COL1A2_ITGB1	COL1A2	ITGB1	Fibro 2	Fibro 2
COL6A2_ITGB1	COL6A2	ITGB1	Fibro 2	Fibro 2	COL3A1_ITGB1	COL3A1	ITGB1	Fibro 2	Fibro 2
COL6A3_ITGB1	COL6A3	ITGB1	Fibro 2	Fibro 2	COL6A1_ITGB1	COL6A1	ITGB1	Fibro 2	Fibro 2
FN1_ITGB1	FN1	ITGB1	Fibro 2	Fibro 2	COL6A2_ITGB1	COL6A2	ITGB1	Fibro 2	Fibro 2
LAMA2_ITGB1	LAMA2	ITGB1	Fibro 2	Fibro 2	COL6A3_ITGB1	COL6A3	ITGB1	Fibro 2	Fibro 2
LGALS1_ITGB1	LGALS1	ITGB1	Fibro 2	Fibro 2	CTGF_LRP1	CTGF	LRP1	Fibro 2	Fibro 2
LUM_ITGB1	LUM	ITGB1	Fibro 2	Fibro 2	FBLN1_ITGB1	FBLN1	ITGB1	Fibro 2	Fibro 2
S100A1_RYR2	S100A1	RYR2	Fibro 2	Fibro 2	FBN1_ITGB1	FBN1	ITGB1	Fibro 2	Fibro 2
TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 2	FN1_ITGB1	FN1	ITGB1	Fibro 2	Fibro 2
TIMP2_ITGB1	TIMP2	ITGB1	Fibro 2	Fibro 2	FN1_SDC2	FN1	SDC2	Fibro 2	Fibro 2
VCAN_ITGB1	VCAN	ITGB1	Fibro 2	Fibro 2	HSP90AA1_LRP1	HSP90AA1	LRP1	Fibro 2	Fibro 2
CALM1_CACNA1C	CALM1	CACNA1C	CM 9	CM 9	HSPG2_ITGB1	HSPG2	ITGB1	Fibro 2	Fibro 2
CALM1_PDE1C	CALM1	PDE1C	CM 9	CM 9	HSPG2_LRP1	HSPG2	LRP1	Fibro 2	Fibro 2
CALM1_RYR2	CALM1	RYR2	CM 9	CM 9	LAMA2_ITGB1	LAMA2	ITGB1	Fibro 2	Fibro 2
LAMA2_ITGB1	LAMA2	ITGB1	CM 9	CM 9	LAMC1_ITGB1	LAMC1	ITGB1	Fibro 2	Fibro 2
LGALS1_ITGB1	LGALS1	ITGB1	CM 9	CM 9	LGALS1_ITGB1	LGALS1	ITGB1	Fibro 2	Fibro 2
S100A1_RYR2	S100A1	RYR2	CM 9	CM 9	LGALS3BP_ITGB1	LGALS3BP	ITGB1	Fibro 2	Fibro 2
					LUM_ITGB1	LUM	ITGB1	Fibro 2	Fibro 2
					MMP2_SDC2	MMP2	SDC2	Fibro 2	Fibro 2
					PSAP_LRP1	PSAP	LRP1	Fibro 2	Fibro 2
					SERPINE2_LRP1	SERPINE2	LRP1	Fibro 2	Fibro 2
					SERPINE1_LRP1	SERPINE1	LRP1	Fibro 2	Fibro 2
					TFPI_LRP1	TFPI	LRP1	Fibro 2	Fibro 2
					TIMP1_CD63	TIMP1	CD63	Fibro 2	Fibro 2
					TIMP2_ITGB1	TIMP2	ITGB1	Fibro 2	Fibro 2
					VCAN_ITGB1	VCAN	ITGB1	Fibro 2	Fibro 2
					CALM1_CACNA1C	CALM1	CACNA1C	CM 9	CM 9
					CALM1_INSR	CALM1	INSR	CM 9	CM 9
					CALM1_PDE1C	CALM1	PDE1C	CM 9	CM 9
					CALM1_RYR2	CALM1	RYR2	CM 9	CM 9
					CALM2_CACNA1C	CALM2	CACNA1C	CM 9	CM 9
					CALM2_INSR	CALM2	INSR	CM 9	CM 9
					CALM2_PDE1C	CALM2	PDE1C	CM 9	CM 9
					COL6A2_ITGB1	COL6A2	ITGB1	CM 9	CM 9
					LAMA2_ITGB1	LAMA2	ITGB1	CM 9	CM 9
					LGALS1_ITGB1	LGALS1	ITGB1	CM 9	CM 9
					LUM_ITGB1	LUM	ITGB1	CM 9	CM 9
					S100A1_RYR2	S100A1	RYR2	CM 9	CM 9
					SORBS1_INSR	SORBS1	INSR	CM 9	CM 9
					TIMP1_CD63	TIMP1	CD63	CM 9	CM 9
					VEGFA_ITGB1	VEGFA	ITGB1	CM 9	CM 9
					VEGFA_NRP1	VEGFA	NRP1	CM 9	CM 9

Supplemental Figure 7. Increased Cardiomyocyte-Fibroblast Subtype Interactome Ligand-Receptor Pair Gene Expression in Obstructive vs. Nonobstructive HCM