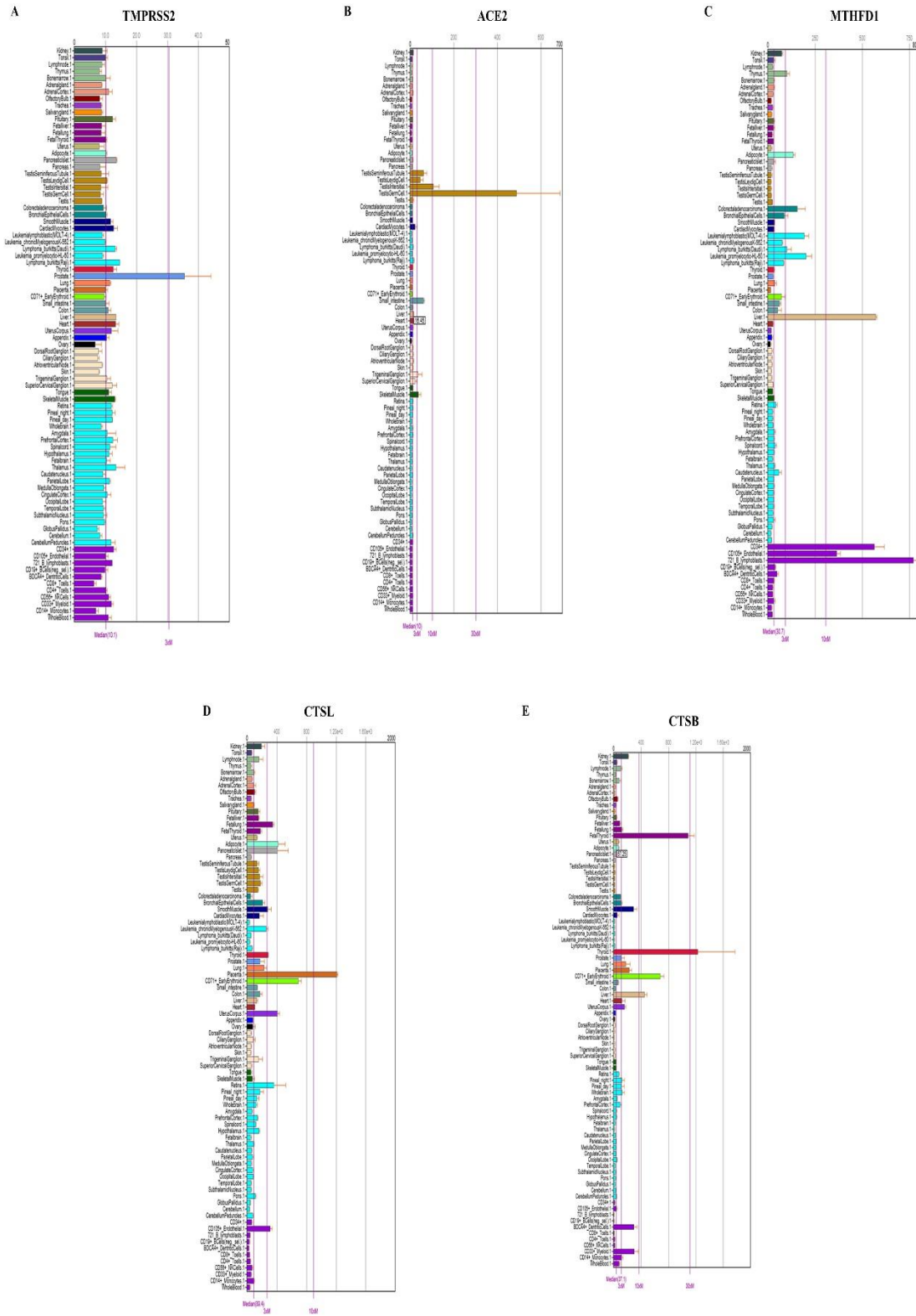


SUPPLEMENTARY DATA

Construction of a Human Cell Landscape of COVID-19 Infection at Single-cell Level

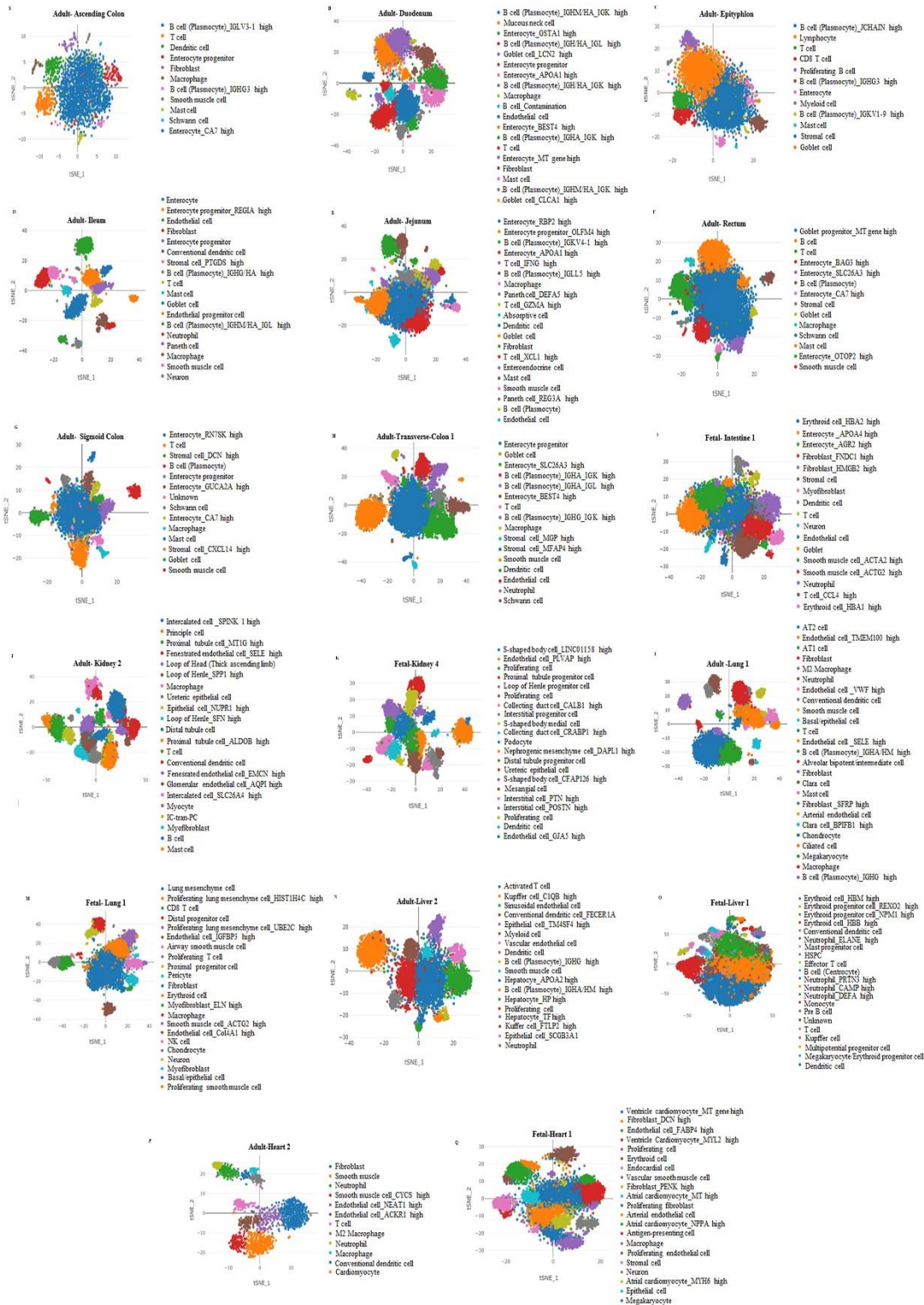
Jian He^{1#}, Yingxin Lin^{2#}, Mei Meng¹, Jingquan Li, Jean YH Yang², Hui Wang^{1*}

SUPPLEMENTARY DATA



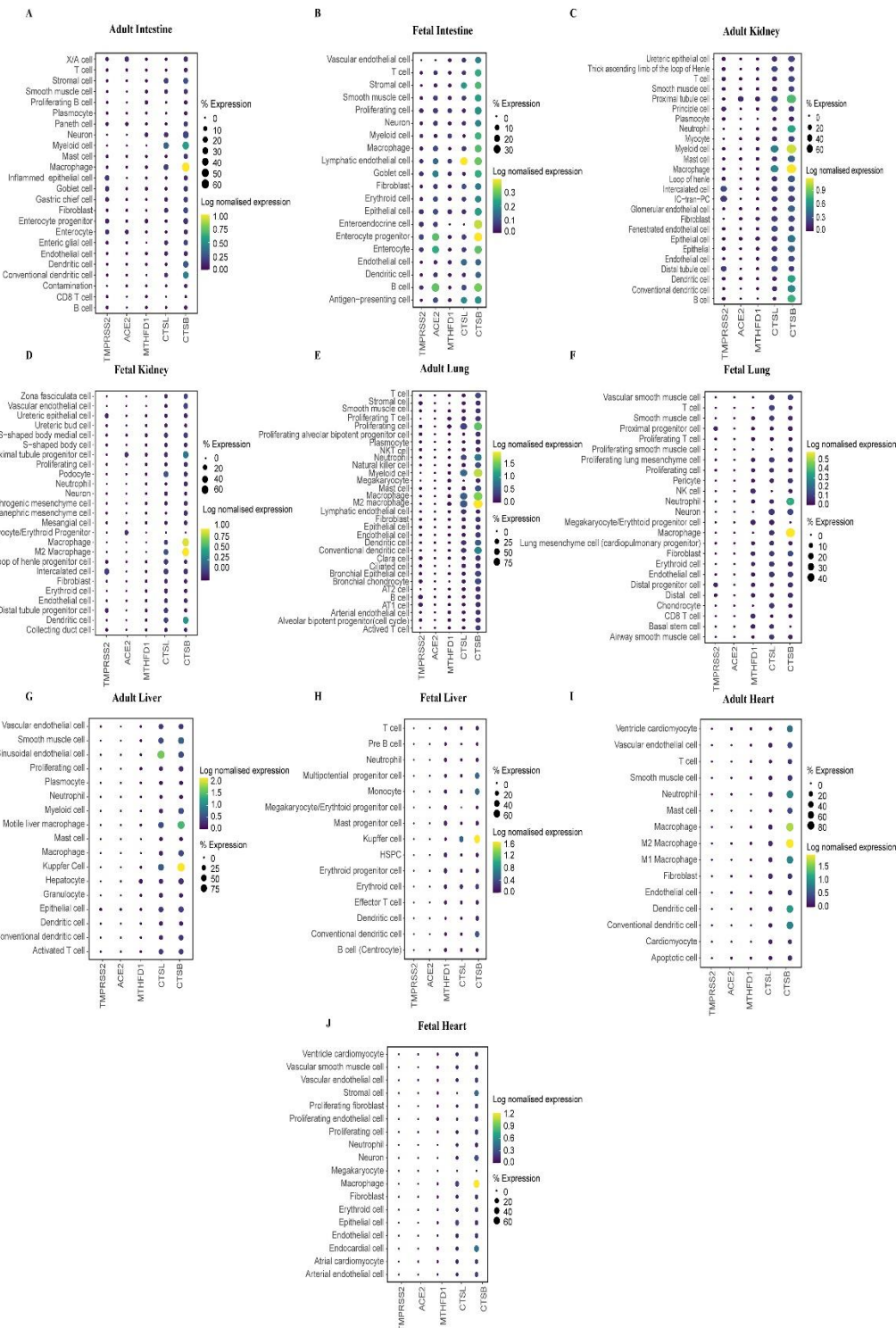
Supplementary Figure 1. Bulk data analysis showed prostate and testis have high *TMPRSS2* (A) and *ACE2* (B) expression level respectively, and liver exhibit high *MTHFD1* (C) expression. Placenta cells and thyroid demonstrated high expression level of *CTSL* (D) and *CTSB* (E) respectively.

SUPPLEMENTARY DATA



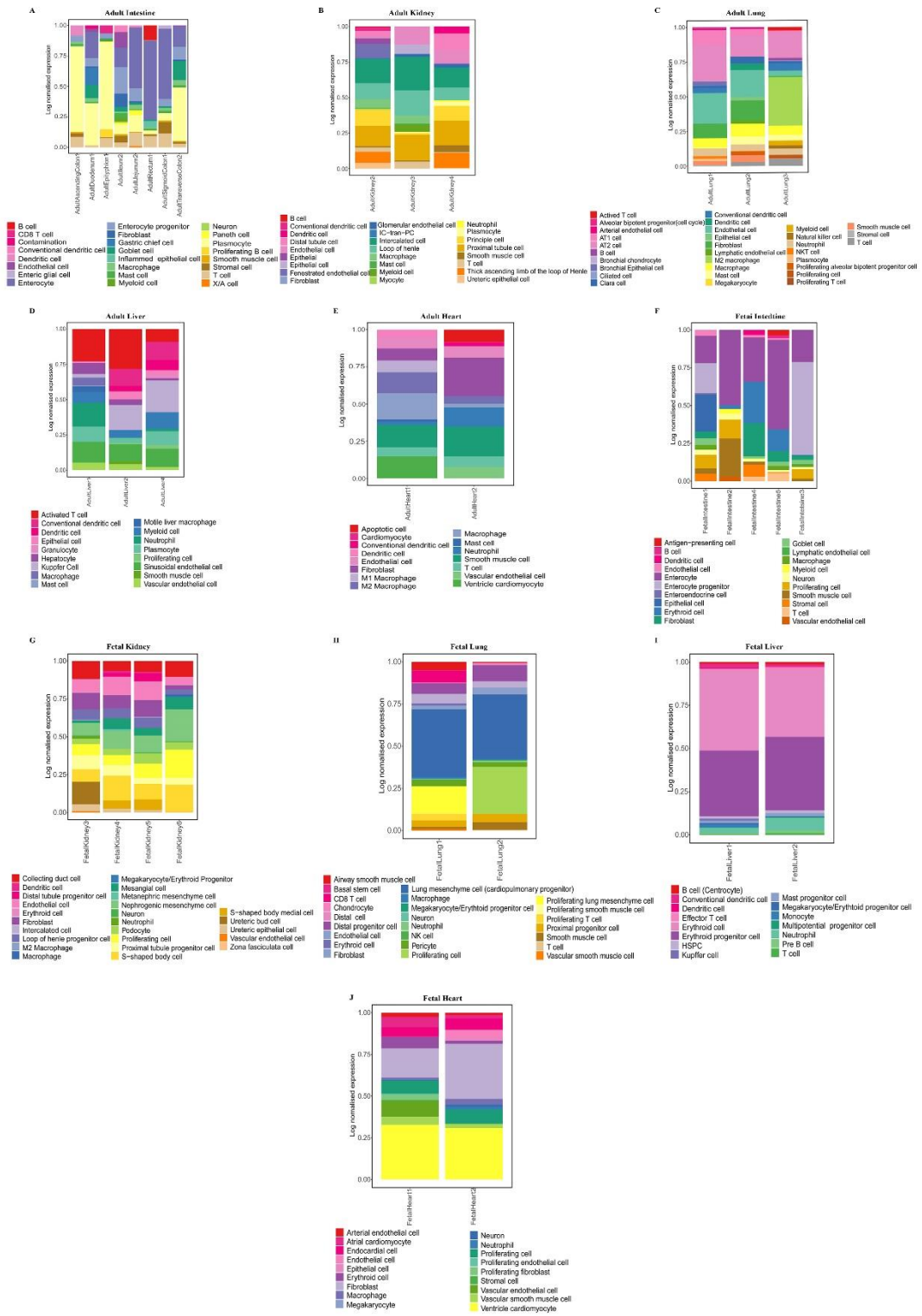
Supplementary Figure 2. scRNA-seq data analysis showed the cells in different organs were categorized into subclusters. (A) Ascending colon, (B) Duodenum, (C) Epityphlon, (D) Ileum, (E) Jejunum, (F) Rectum, (G) Sigmoid colon, (H) Transverse-colon, (I) Representative for four fetal intestine donors, (J) Representative for three adult kidney donors, (K) Representative for four fetal kidney donors, (L) Representative for three adult lung donors, (M) Representative for two fetal lung donors, (N) Representative for three adult liver donors. (O) Representative for two fetal liver donors, (P) Representative for two adult heart donors, (Q) Representative for two fetal heart donors.

SUPPLEMENTARY DATA



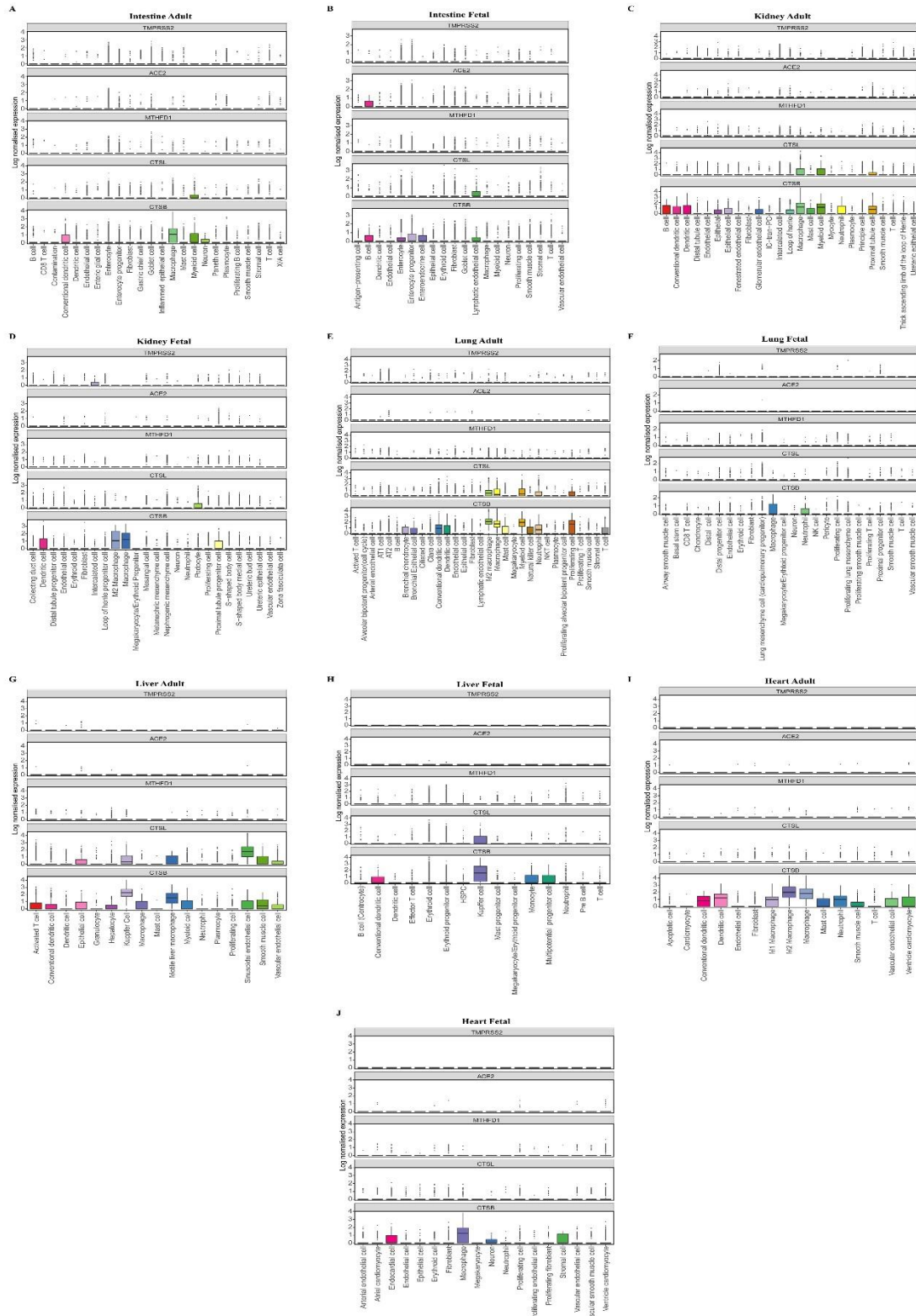
Supplementary Figure 3. scRNA-seq data analysis showed the cells in different organs of the adult and fetal intestine donors and the grade adult and fetal organs at risk. Enrichment of the five factors in adult (A) and fetal (B) intestine. Enrichment of the five factors in adult (C) and fetal (D) kidney. Enrichment of the five factors in adult (E) and fetal (F) lung. Enrichment of the five factors in adult (G) and fetal (H) liver. Enrichment of the five factors in adult (I) and fetal (J) heart. The size of the dots indicates the proportion of cells in the respective cell type having greater-than-zero expression of these factors, while the color indicates the average log normalized expression of these genes.

SUPPLEMENTARY DATA



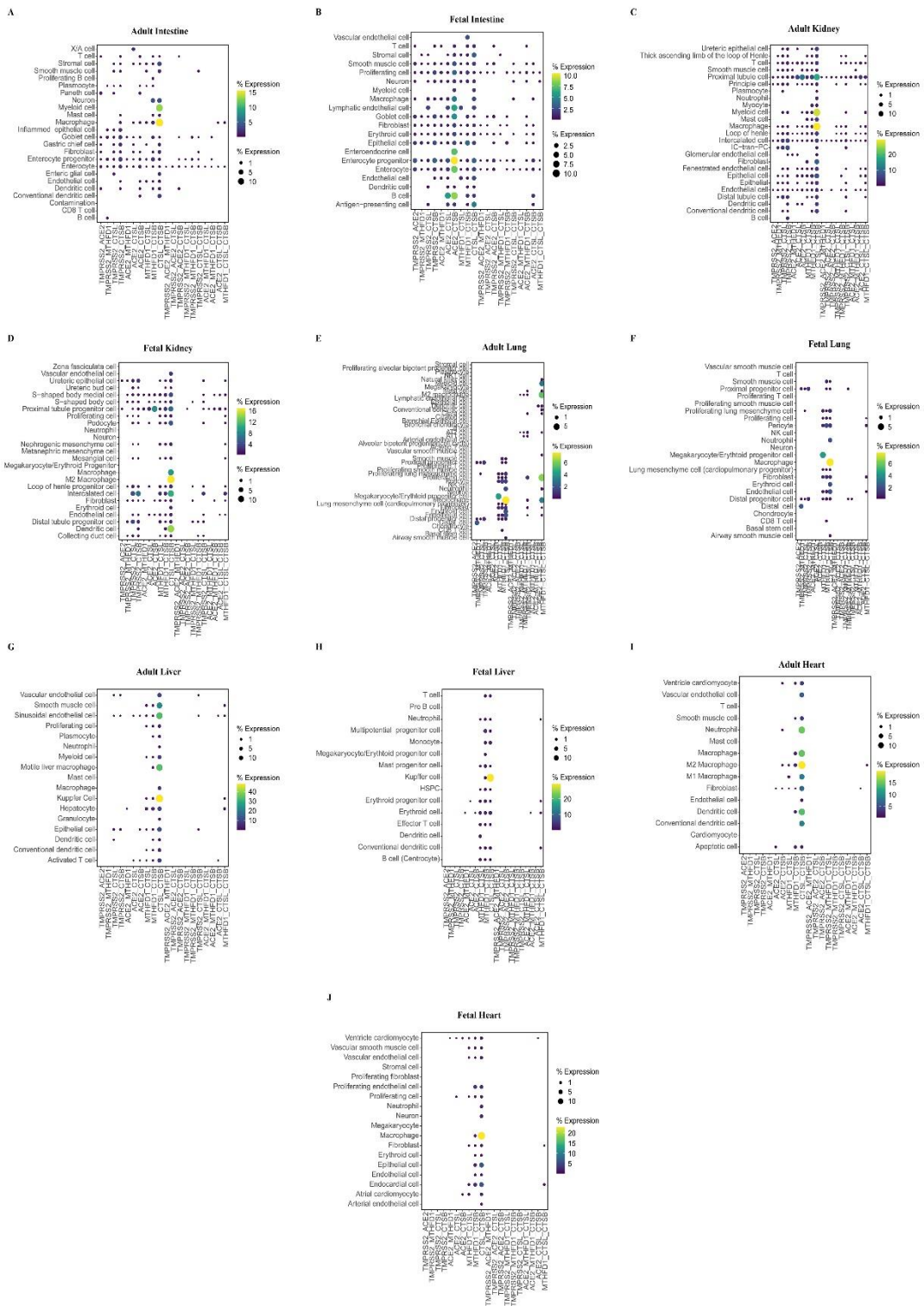
Supplementary Figure 4. Cell proportion of adult and fetal intestine (A, F), kidney (B, G), lung (C, H), liver (D, I), heart (E, J).

SUPPLEMENTARY DATA



Supplementary Figure 5. Bar plot of the RNA expression level of *TMPRSS2*, *ACE2*, *MTHFD1*, *CTSL* and *CTSB* in adult (A, C, E, G, I) and fetal (B, D, F, H, J) intestine (A, B), kidney (C, D), lung (E, F), liver (G, H), heart (I, J). Raw expression values were normalized, log transformed and summarized by published cell clustering where available or reproduced clustering annotated using marker genes and cell type nomenclature from the respective studies.

SUPPLEMENTARY DATA



Supplementary Figure 6. The factors' co-expression from dataset of adult (C, G, K, O, S) and fetal (D, H, L, P, T) intestine (C, D), kidney (G, H), lung (K, L), liver (O, P), heart (S, T). The dot size and color represent the proportion of cells within the respective cell type co-expressing the genes.

SUPPLEMENTARY DATA

Supplementary Table 1. Basic information of samples.

	Organ	Gender	Age	Source of sample		Medical history	Sampling location
				Abortion/DCD/Operation	Cause of death		
Intestine	Adult Ascending Colon1	F	47	DCD	Cerebral hemorrhage	Hypertension	Partial tissue
	Adult Duodenum1	M	52	DCD	Traumatic brain injury		Partial tissue
	Adult Epityphlon	F	47	DCD	Cerebral hemorrhage	Hypertension	Partial tissue
	Adult Ileum2	M	41	DCD	Spontaneous brain hemorrhage		Partial tissue
	Adult Jejunum2	M	64	Operation		Cardia cancer	Proximal jejunum
	Adult Rectum1	F	47	DCD	Cerebral hemorrhage	Hypertension	Partial tissue
	Adult Sigmoid Colon1	F	47	DCD	Cerebral hemorrhage	Hypertension	Lower part of the sigmoid colon
	Adult Transverse Colon1	F	51	DCD	Respiratory failure	Severe asthma	Middle of the transverse colon
	Adult Transverse Colon2	F	83	Operation		Colon cancer	Lower colon
	Fetal Intestine1	F	12	Abortion			Intact tissue
	Fetal Intestine2	M	10	Abortion			Intact tissue
	Fetal Intestine4	F	11	Abortion			Intact tissue
	Fetal Intestine5	M	12	Abortion			Intact tissue
	Kidney	Adult Kidney2	M	66	Operation		Kidney cancer
Adult Kidney3		M	41	DCD	Spontaneous brain hemorrhage		Partial tissue
Adult Kidney4		M	57	Operation		Kidney cancer	left kidney
Fetal Kidney3		M	13	Abortion			Intact tissue
Fetal Kidney4		M	11	Abortion			Intact tissue
Fetal Kidney5		M	12	Abortion			Intact tissue
Fetal Kidney6		F	11	Abortion			Intact tissue
Lung	Adult Lung1	M	21	DCD	Traffic accident	High BMI	The lower lobe of right lung
	Adult Lung2	F	21	DCD	Traumatic brain injury		The lower lobe of right lung
	Adult Lung3	F	49	Operation		Pulmonary nodule	inferior lobe of right lung
	Fetal Lung1	F	12	Abortion			Intact tissue
	Fetal Lung2	F	11	Abortion			Intact tissue
Liver	Adult Liver1	F	21	DCD	Traumatic brain injury		Right lobe
	Adult Liver4	F	23	Operation		Hocal nodular hyperplasia	Left lateral lobe
	Fetal Liver1	F	26	Abortion			Intact tissue
Heart	Adult Heart1	M	52	DCD	Traumatic brain injury		Left ventricular apex
	Adult Heart2	F	47	DCD	Cerebral hemorrhage	Hypertension	Left ventricle
	Fetal	F	12	Abortion			Intact tissue
	Fetal	F	11	Abortion			Intact tissue
Skin	Fetal Skin2	F	7	Abortion			Limb
	Fetal Skin3	F	11	Abortion			scalp

SUPPLEMENTARY DATA

Omentum	Adult Omentum1	M	21	DCD	Brain death (traffic accident) Spontaneous brain hemorrhage	High BMI	Partial tissue
	Adult Omentum2	M	41	DCD		Partial tissue	
	Adult Omentum3	M	56	Operation	Esophageal cancer	Abdominal cavity	
Placenta	Placenta1	F	10	Abortion			Partial tissue

DCD, Donation after Cardiac Death

Supplementary Table 2. Expression level of COVID-19 receptors.

Organ	Cluster No.	Annotation	Organ	Cluster No.	Annotation	
Intestine	Adult Ascending colon	B cell (Plasmocyte)_IGLV3-1 high	Intestine	Fetal Intestine 1	Enterocyte_RPS2P46 high	
		T cell			Enterocyte progenitor_APOA4 high	
		Dendritic cell			Enterocyte_GSTA1 high	
		Enterocyte progenitor			Proliferating cell	
		Fibroblast			Stromal cell	
		Macrophage			Goblet cell	
		B cell (Plasmocyte)_IGHG3 high			Myofibroblast	
		Smooth muscle cell			Endothelial cell	
		Mast cell			Smooth muscle cell	
		Schwann cell			Neuron	
		Enterocyte_CA7 high			Macrophage	
Adult_Duodenum		B cell (Plasmocyte)_IGHM/HA_A_IGK high	Fetal_Intestine 2		Enteroendocrine cell	
		Mucous neck cell			Enterocyte	
		Enterocyte_GSTA1 high			Myofibroblast	
		B cell (Plasmocyte)_IGH/HA_IGL high			Proliferating cell	
		Goblet cell_LCN2 high			Neuron	
		Enterocyte progenitor			Neutrophil	
		Enterocyte_APOA1 high			Endothelial cell	
		B cell (Plasmocyte)_IGH/HA_IGK high			Erythroid cell	
		Macrophage			Fetal_Intestine 4	Erythroid cell_HBA2 high
		B cell_Contamination				Enterocyte_APOA4 high
		Endothelial cell				Enterocyte_AGR2 high

SUPPLEMENTARY DATA

	12	Enterocyte_BEST4 high		4	Fibroblast_FNDC1 high
		B cell (Plasmocyte)_IGHA_I GK high			Fibroblast_HMGB2 high
	13	T cell		5	Stromal cell
	14	Enterocyte_MT gene high		6	Myofibroblast
	15	Fibroblast		7	Dendritic cell
	16	Mast cell		8	T cell
	17	B cell (Plasmocyte)_IGHM/H A_IGK high		9	Neuron
	18	Goblet cell_CLCA1 high		10	Endothelial cell
	19	B cell (Plasmocyte)_JCHAIN high		11	Goblet
Adult_Epityphlon	1	Lymphocyte		12	Smooth muscle cell_ACTA2 high
	2	T cell		13	Smooth muscle cell_ACTG2 high
	3	CD8 T cell		14	Neutrophil
	4	Proliferating B cell		15	T cell_CCL4 high
	5	B cell (Plasmocyte)_IGHG3 high		16	Erythroid cell_HBA1 high
	6	Enterocyte	Fetal_Intestine 5	17	Enterocyte _APOA4 high
	7	Myeloid cell		1	Epithelial cell
	8	B cell (Plasmocyte)_IGKV1-9 high		2	Stromal cell_CXCL 14 high
	9	Mast cell		3	Enterocyte_GSTA1 high
	10	Stromal cell		4	Macrophage
	11	Goblet cell		5	Proliferating cell
Adult_Ileum	12	Enterocyte		6	Endothelial cell
	1	Enterocyte progenitor_REGIA high		7	Goblet cell
	2	Endothelial cell		8	Stromal cell_MGP high
	3	Fibroblast		9	T cell
	4	Enterocyte progenitor		10	Neuron
	5	Conventional dendritic cell		11	Enteroendocrine cell_CFL1 high
	6	Stromal cell_PTGDS high		12	Enteroendocrine cell_MLN high
	7	B cell (Plasmocyte)_IGHG/H A high		13	Proliferating cell
	8	T cell		14	Enterocyte_GUCA2A high
	9	Mast cell		15	Smooth muscle cell_MT-RNR2 high
	10	Goblet cell		16	Smooth muscle_ACT2 high
	11	Endothelial progenitor cell		17	Paneth cell
	12	B cell (Plasmocyte)_IGHM/H A_IGL high		18	
	13	Neutrophil			
	14	Paneth cell			
	15				

SUPPLEMENTARY DATA

	16	Macrophage
	17	Smooth muscle cell
	18	Neuron
Adult_Jejunum	1	Enterocyte_RBP2 high Enterocyte progenitor_OLFM4
	2	high B cell (Plasmocyte)_IGKV4-
	3	1 high Enterocyte_APOA1
	4	high
	5	T cell_IFNG high B cell (Plasmocyte)_IGLL5
	6	high
	7	Macrophage Paneth cell_DEFA5
	8	high
	9	T cell_GZMA high
	10	Absorptive cell
	11	Dendritic cell
	12	Goblet cell
	13	Fibroblast
	14	T cell_XCL1 high
	15	Enteroendocrine cell
	16	Mast cell
	17	Smooth muscle cell Paneth cell_REG3A
	18	high
	19	B cell (Plasmocyte)
	20	Endothelial cell Goblet progenitor_MT gene high
Adult_Rectum	1	B cell
	2	T cell
	3	Enterocyte_BAG3 high Enterocyte_SLC26A3
	4	high
	5	B cell (Plasmocyte)
	6	Enterocyte_CA7 high
	7	Stromal cell
	8	Goblet cell
	9	Macrophage
	10	Schwann cell
	11	Mast cell Enterocyte_OTOP2
	12	high
	13	Smooth muscle cell Enterocyte_RN7SK
	14	high
Adult_Sigmoid Colon	1	Goblet cell

SUPPLEMENTARY DATA

	2	T cell
	3	Stromal cell_DCN high
	4	B cell (Plasmocyte)
	5	Enterocyte progenitor
	6	Enterocyte_GUCA2A high
	7	Unknown
	8	Schwann cell
	9	Enterocyte_CA7 high
	10	Macrophage
	11	Mast cell
	12	Stromal cell_CXCL14 high
	13	Goblet cell
	14	Smooth muscle cell
Adult_Transverse-Colon	1	Enterocyte progenitor
	2	Goblet cell
	3	Enterocyte_SLC26A3 high
	4	B cell (Plasmocyte)_IGHA_I GK high
	5	B cell (Plasmocyte)_IGHA_I GL high
	6	Enterocyte_BEST4 high
	7	T cell
	8	B cell (Plasmocyte)_IGHG_I GK high
	9	Macrophage
	10	Stromal cell_MGP high
	11	Stromal cell_MFAP4 high
	12	Smooth muscle cell
	13	Dendritic cell
	14	Endothelial cell
	15	Neutrophil
	16	Schwann cell
Adult_Transverse-Colon 2	1	B cell (Plasmocyte)_IGKC high
	2	B cell (Plasmocyte)_IGLC3 high
	3	Enterocyte progenitor
	4	Goblet cell_FCGBP high
	5	Goblet cell_PIGR high
	6	Enterocyte_CA1 high
	7	Macrophage
	8	B cell (Plasmocyte)_IGHG1 high

SUPPLEMENTARY DATA

		9	Enterocyte_SLC26A3 high			
		10	T cell			
		11	Goblet cell_ZG16 high			
		12	Enterocyte_SELENBP1 high			
		13	Enterocyte_BEST4 high			
		14	Enterocyte_PHGR1 high			
		15	Mast cell			
		16	Fibroblast			
		17	Enterocyte_CA7 high			
		18	Stromal cell			
		19	Endothelial cell			
		20	Smooth muscle cell			
Kidney	Adult_Kidney2			Kidney	Fetal_Kidney 3	
		1	Intercalated cell _SPINK1 high			1 Lymphatic endothelial cell
		2	Principle cell			2 Neutrophil
		3	Proximal tubule cell_MT1G high			3 Proximal tubule progenitor cell
		4	Fenestrated endothelial cell_SELE high			4 S-shaped body cell_PSMA2 high
		5	Loop of Head (Thick ascending limb)			5 Nephrogenic mesenchyme cell_DAPL1 high
		6	Loop of Henle_SPP1 high			6 Proliferating cell
		7	Macrophage			7 Loop of Henle progenitor cell
		8	Ureteric epithelial cell			8 Interstitial progenitor cell
		9	Epithelial cell_NUPR1 high			9 Endothelial cell_PLVAP high
		10	Loop of Henle_SFN high			10 Ureteric epithelial cell
		11	Distal tubule cell			11 Interstitial cell_POSTN high
		12	Proximal tubule cell_ALDOB high			12 Podocyte
		13	T cell			13 Endothelial cell_EMCN high
		14	Conventional dendritic cell			14 Mesangial cell
		15	Fenestrated endothelial cell_EMCN high			15 Neutrophil
		16	Glomerular endothelial cell_AQPI high			16 Endothelial cell_GJA5 high
		17	Intercalated cell_SLC26A4 high			17 Neuron
		18	Myocyte			18 Erythroid cell
		19	IC-tran-PC			19 M2 Macrophage
		20	Myofibroblast			20 Endothelial cell_CCL21 high
		21	B cell		Fetal_Kidney 4	1 S-shaped body cell_LINC01158 high
		22	Mast cell			2 Endothelial cell_PLVAP high
	Adult_Kidney3	1	Proximal tubule cell_LRP2 high			3 Proliferating cell
		2	Intercalated cell_SPINK1 high			4 Proximal tubule progenitor cell
		3	Fenestrated endothelial cell_SELE high			5 Loop of Henle progenitor cell
		4	Loop of Henle_ANXA1 high			6 Proliferating cell

SUPPLEMENTARY DATA

	5	Loop of Henle_UMOD high		7	Collecting duct cell_CALB1 high
		Proximal tubule		8	Interstitial progenitor cell
	6	cell_MT1G high		9	S-shaped body medial cell
	7	Neutrophil		10	Collecting duct cell_CRABP1 high
	8	T cell		11	Podocyte
	9	Kidney epithelial		12	Nephrogenic mesenchyme cell_DAPL1 high
	10	Unknown		13	Distal tubule progenitor cell
	11	Macrophage_APOC1 high		14	Ureteric epithelial cell
	12	Endothelial		15	S-shaped body cell_CFAP126 high
	13	cell_EMCN high		16	Mesangial cell
	14	Loop of Henle_KNG1 high		17	Interstitial cell_PTN high
	15	Glomerular endothelial		18	Interstitial cell_POSTN high
	16	cell_AQP1 high		19	Proliferating cell
	17	Macrophage_GPR183 high		20	Dendritic cell
	18	Intercalated		21	Endothelial cell_GJA5 high
	19	Intercalated		1	Endothelial cell_PLVAP high
	20	cell_CALB1 high		2	Nephrogenic mesenchyme cell_DAPL1 high
	21	Principle cell		3	S-shaped body cell
	22	Intercalated		4	Proliferating cell
	23	cell_SLC26A high		5	Interstitial progenitor cell
	24	Smooth muscle cell		6	S-shaped body medial cell
		B cell (Plasmocyte)	Fetal_Kidney 5	7	Collecting duct cell
		Mast cell		8	Loop of Henle progenitor
		Fibroblast		9	Podocyte
		Endothelial		10	Distal tubule progenitor cell
		cell_COL4A1 high		11	Collecting duct cell
		Neutrophil		12	Proximal tubule progenitor cell
Adult_Kidney4	1	Loop of Henle (Thick ascending limb)		13	Interstitial cell_POSTN high
	2	Principle cell		14	Ureteric epithelial cell
	3	Intercalated		15	Dendritic cell
	4	cell_SPINK1 high		16	Neuron
	5	Distal tubule		17	Endothelial cell_CCL21 high
	6	cell_SLC12A3 high		18	Intercalated cell
	7	Proximal tubule		19	Erythroid cell
	8	cell_ALDOB high		1	Nephrogenic mesenchyme cell_DAPL1 high
	9	Proximal tubule		2	Proliferating cell
	10	cell_MT1G high		3	S-shaped body cell
	11	Dendritic cell			
	12	Loop of Henle_SOD3 high			
	13	Endothelial			
	14	cell_IGFBP5 high			
	15	Smooth muscle cell			
	16	Proximal tubule	Fetal_Kidney 6		
	17	cell_SOX4 high			
	18	Endothelial			
	19	cell_SLCA3 high			
	20	Loop of Henle_SLP high			
	21	Distal tubule			
	22	cell_KLK1 high			
	23	Intercalated			
	24	cell_SLC26A4 high			
		B cell			
		Glomerular endothelial			
		cell_AQP1 high			

SUPPLEMENTARY DATA

		18	Intercalated cell_CALB1 high			4	Collecting duct cell
		19	Neutrophil			5	Interstitial progenitor cell
		20	Endothelial cell_EMCN high			6	Endothelial cell_PLVAP high
		21	Ureteric epithelial cell			7	Podocyte
		22	T cell			8	Proximal tubule progenitor cell
						9	Loop of Henle progenitor cell
						10	Interstitial cell_POSTN high
						11	Macrophage
						12	Neuron
						13	Erythroid cell
						14	Zona fasciculata cell
						15	Megakaryocyte/Erythroid Progenitor
Lung	Adult_Lung1	1	AT2 cell	Lung	Fetal_Lung 1	1	Lung mesenchyme cell
		2	Endothelial cell_TMEM100 high			2	Lung mesenchyme cell
		3	AT1 cell			3	CD8 T cell
		4	Fibroblast			4	Distal progenitor cell
		5	M2 Macrophage			5	Proliferating lung mesenchyme cell_UBE2C high
		6	Neutrophil			6	Endothelial cell_IGFBP3 high
		7	Endothelial cell_VWF high			7	Airway smooth muscle cell
		8	Conventional dendritic cell			8	Proliferating T cell
		9	Smooth muscle cell			9	Proximal progenitor cell
		10	Basal/epithelial cell			10	Pericyte 1
		11	T cell			11	Fibroblast
		12	Endothelial cell_SELE high			12	Erythroid cell
		13	B cell (Plasmocyte)_IGHA/H M high			13	Myofibroblast_ELN high
		14	Alveolar bipotent/intermediate cell			14	Macrophage
		15	Fibroblast			15	Smooth muscle cell_ACTG2 high
		16	Clara cell			16	Endothelial cell_Col4A1 high
		17	Mast cell			17	NK cell
		18	Fibroblast_SFRP high			18	Chondrocyte
		19	Arterial endothelial cell			19	Neuron
		20	Clara cell_BPIFB1 high			20	Myofibroblast
		21	Chondrocyte			21	Basal/epithelial cell
		22	Ciliated cell			22	Proliferating smooth muscle cell
		23	Megakaryocyte		Fetal_Lung 2	1	Lung mesenchyme cell
		24	Macrophage			2	Proliferating cell_KIAA010 high
		25	B cell (Plasmocyte)_IGHG high			3	Proliferating cell_UBE2C high
	Adult_Lung2	1	AT2 cell			4	Distal progenitor cell

SUPPLEMENTARY DATA

	2	Fibroblast Endothelial cell_SELE high	5	Smooth muscle cell
	3	Macrophage Endothelial cell_VWF high	6	Proximal progenitor cell_SCGB3A2 high
	4	Mast cell	7	Fibroblast
	5	AT1 cell	8	Endothelial cell
	6	Neutrophil	9	Pericyte
	7	Clara cell_KLK11 high Endothelial cell_TMEMP100 high	10	Conventional dendritic cell
	8	Smooth muscle cell_ACTA2 high	11	Proliferating cell
	9	Dendritic Cell	12	Proximal progenitor cell_GRP high
	10	T cell Lymphatic endothelial cell	13	Airway smooth muscle cell
	11	Proliferating alveolar bipotent progenitor cell Smooth muscle cell_COX4I2 high	14	T cell
	12	Monocyte Epithelial cell_PLA2G2A high	15	Chondrocyte
	13	Arterial endothelial cell Epithelial cell_S100A2 high	16	Megakaryocyte/Erythroid progenitor cell
	14	Clara cell_BPIFB1 high	17	Macrophage
	15	B cell		
	16	Proliferating cell		
Adult- Lung 3	1	M2 macrophage		
	2	AT2 cell Conventional dendritic cell		
	3	Macrophage_CCL20 high		
	4	T cell		
	5	Neutrophil		
	6	Mast cell		
	7	Myeloid cell		
	8	Activated T cell		
	9	NK cell Endothelial cell_SPARCL1 high		
	10	Monocyte		
	11	B cell		
	12	AT1 cell		
	13	Proliferating cell Endothelial cell_ACKR1 high		
	14	Clara cell Macrophage_VSIG4 high		
	15			
	16			
	17			
	18			

SUPPLEMENTARY DATA

		19	Fibroblast			
		20	Proliferating T cell			
		21	Ciliated cell			
		22	Smooth muscle cell			
Liver	Adult_Liver1			Liver	Fetal_Liver 1	
		1	Sinusoidal endothelial cell		1	Erythroid cell_HBM high
		2	Activated T cell		2	Erythroid progenitor cell_REXO2 high
		3	B cell (Plasmocyte)_IGHM/H G high		3	Erythroid progenitor cell_NPM1 high
		4	Myeloid cell Neutrophil_CD177 high		4	Erythroid cell_HBB high
		5	Macrophage		5	Conventional dendritic cell
		6	Hepatocyte_FGB high		6	Neutrophil_ELANE high
		7	Vascular endothelial cell		7	Mast progenitor cell
		8	Neutrophil_LCN2 high		8	HSPC
		9	Motile liver macrophage		9	Effector T cell
		10	Neutropgil_CAMP high		10	B cell (Centrocyte)
		11	Kupffer cell		11	Neutrophil_PRTN3 high
		12	Hepatocyte_GSTA1 high		12	Neutrophil_CAMP high
		13	Neutrophil_ELANE high		13	Neutrophil_DEFA high
		14	Epithelial cell		14	Monocyte
		15	Mast cell1		15	Pre B cell
		16			16	Unknown
	Adult_Liver4	1	Kupffer cell		17	T cell
		2	Conventional dendritic		18	Kupffer cell
		3	Myeloid cell		19	Multipotential progenitor cell
		4	Sinusoidal endothelial cell_FC N3 high		20	Megakaryocyte/Erythroid progenitor cell
		5	Activated T cell		21	Dendritic cell
		6	Dendritic cell			
		7	Epithelial cell			
		8	B cell (Plasmocyte)_IGHA/H M_IGK high			
		9	Proliferating cell			
		10	B cell (Plasmocyte)_IGHG_I GK high			
		11	Neutrophil			
		12	B cell (Plasmocyte)_IGHA/H M_IGL high			
		13	Vascular endothelial cell			
		14	Sinusoidal endothelial cell_FC N1 high			
		15	Neutrophil			
		16	B cell (Plasmocyte)_IGHG_I GL high			

