Table 1. Cell types and their markers during early and late murine lung development, as identified in selected scRNA-seq datasets.

Mouse	Cell							Em	bryonic day	/ (E)									Postnata	al day (P)				Ref.
strain	source	Cell type	Identifying markers	E9/9.5	E10.5	E11.5	E12.5	E13.5	E14.5	E15.5	E16.5	E17.5	E18.5	E19.5	P0	P1	P2	P3	P6	P7	P14	P15	P21	
	Embryonic foregut-	Trachea	Nkx2-1+/Sox2-																					
C57BL/6J	endoderm	Lung	Nkx2-1+/Sox2+																					(19)
	Embryonic foregut- mesoderm	Respiratory	Foxf1, Osr1, Nkx2-1, Tbx2																					(2)
		Epithelial cells	Epcam, Cldn6, Cldn7, Cdh1, Krt8, Krt18, Krt7,																					
C57BL/6J	Whole lung	Mesoderm- derived cells	Col3a1, Vim, Col1a1, Col1a2, Fn1																					(14)
		Hematopoietic cells	Gata1, Tal1, Runx1, Klf1																					
C57BL/6	Whole lung	Lung epithelium	Nkx2-1																					(8)
		NK	Gzma				N/A				2% of CD45+		1% of	CD45+	1% of CD45+	2% of CD45+	2% of CD45+			2% of CD45+				
		ILC	Rora				3% of CD45+				3% of CD45+		1% of	CD45+	< 1% of CD45+	1% of CD45+	1% of CD45+			3% of CD45+				
		T cells	Trbc2				N/A				< 1% of CD45+		1% of	CD45+	1% of CD45+	2% of CD45+	3% of CD45+			22% of CD45+				
		B cells	Cd79b				N/A				N/A		4% of	CD45+	2% of CD45+	6% of CD45+	9% of CD45+			8% of CD45+				
		DC	Flt3				18% of CD45+				4% of CD45+		2% of	CD45	1% of CD45+	2% of CD45+	3% of CD45+			4% of CD45				
		Mast cells	Mcpt4, Gata2				11% of CD45+				2% of CD45+		N	I/A	N/A	N/A	N/A			< 1% of CD45+				
		Basophils	Mcpt8				1% of CD45+				4% of CD45+		N	I/A	N/A	< 1% of CD45+	1% of CD45+			1% of CD45+				
		Neutrophils	S100a8, Csf3r				5% of CD45+				6% of CD45+		18% of	f CD45+	37% of CD45+	14% of CD45+	36% of CD45+			8% of CD45+				
		Monocyte	Ccr2, F13a1, Fcgr4, Csf1r				10% of CD45+				58% of CD45+		20% of	f CD45+	10% of CD45+	11% of CD45+	16% of CD45+			36% of CD45+				(10)
		Macrophage I	Cx3cr1				52% of CD45+				3% of CD45+		N	I/A	N/A	N/A	< 1% of CD45+			N/A				
	Whole	Macrophage II	Ear2				N/A				12% of CD45+		42% of	f CD45+	36% of CD45+	30% of CD45+	12% of CD45+			2% of CD45+				
C57BL/6	lung	Macrophage III	Ccl6, Cd9				N/A				N/A		4% of	CD45-	5% of CD45+	10% of CD45+	10% of CD45+			6% of CD45+				
		Ciliated	Ccdc19, Foxj1				N/A				N/A		< 1% c	of CD45	N/A	N/A	N/A			N/A				
		Club	Scgb3a2				N/A				4% of CD45-		1% of	CD45-	N/A	N/A	2% of CD45			< 1% of CD45-				
		AT1	Clic5				N/A				N/A		22% o	f CD45-	21% of CD45-	16% of CD45-	22% of CD45			7% of CD45-				
		AT2	Sftpc				N/A				N/A		18% o	f CD45	15% of CD45	10% of CD45-	16% of CD45			16% of CD45-				
		Epithelium progenitor	Epcam				10% of CD45				29% of CD45		1% of	CD45	N/A	N/A	N/A			N/A				
		Pericyte	Gucy1a3				< 1% of CD45				1% of CD45		1% of	CD45	< 1% of CD45	< 1% of CD45 ⁻	< 1% of CD45 ⁻			1% of CD45				
		Matrix fibroblast	Mfap4				N/A				12% of CD45-		6% of	CD45	6% of CD45-	16% of CD45-	12% of CD45			7% of CD45-				
		Smooth muscle fibroblast	Tgfbi				N/A				N/A		8% of	CD45	8% of CD45	11% of CD45-	5% of CD45			12% of CD45-				
		Fibroblast progenitor	Col1a2				82% of CD45-				20% of CD45-		2% of	CD45	2% of CD45	2% of CD45-	3% of CD45-			4% of CD45-				
		Endothelium	Cdh5				4% of CD45-				28% of CD45-		34% o	f CD45	40% of CD45	38% of CD45-	34% of CD45			48% of CD45-				
		Plexus cells	Mki67, Top2a, Aplnr																					
C57BL/6	Whole lung	аСар	Car4, Ednrb, Apln, Tbx2, Tbx3																					(10, 16)
	iung	gCap	Cd74, Cxcl12, Plvap, Cemip2																					10)

		AT1	Aqp5, Cav1, Pdpn, Ager, Vegfa																		
		.=-	Abca3, Sftpc, Sftpb,																		
		AT2	Lyz2, Muc1, Cftr																		
C57BL/6J	Whole	Club	Scgb1a1, Scgb3a2, Cyp2f2, Krt15																		(50)
	lung	Ciliated	FoxJ1, Itgb4, Top2a																		
		Bipotential																			
		progenitor (AT1/AT2)	Sftpc, Pdpn																		
			Hopx, Ager, Cryab,																		
		AT1 precursor	H19, Tmsbp10, Cdkn1c, Igfcp5																		
			Hopx, Ager, Cryab,																		
		AT1	Clic5, Aqp5, Msln,																		
			Emp2, S100a6 Sftpc, Sftpb, Sftpa1,																		
		AT2 precursor	Lamp3, Clu, Cd74,																		
			Mdk, Mia, Dlk1 Sftpc, Sftpb, Sftpa1,																		
		AT2	Lamp3, Retnla, Lyz1,																		
		Secretory cells	Cxcl15																		
		Multi-ciliated			-			-													
Nkx2-GFP;	Nkx2 ⁺	cells																			
C57BL/6J	lineage	Neuroendocrin e cells																			(15)
background	lung cells	Endothelial																			
		cells Goblet like																			
		precursors																			
		Proliferative																			
		cells Stress induced																			
		cells																			
		Sftpc*/Hopx+								4.63% 14.15											
		Hopx*								%											
		Sftpc*								21.14 %											
		Sftpc*/Hopx*								60.08 %											
		Car4* EC	Car4, Apln, Cdh5														18% of Ecs				
		Plvap* EC	Plvap, Aplnr, Cdh5														77% of ECs				
		V- #50	Vwf, Plvap, Gja5																		
		Vwf*EC	(arterial), Nr2f2 (venous)																		
		Lymphatic EC	Prox1, Nr2f2																		
		Interstitial fibroblasts	Wnt2, Acta2																		
		Airways & vascular SMC	Acta2, Pdgfrb																		
	140 - 1	Pericyte	Pdgfrb, Acta2																		
0	Whole lung (P6)/	Myofibroblast	Psgfra, Acta2																		
Control mice	lung	AT1	Rtkn2																		(51)
	EC only (P7)	AT2	Lamp3																		
		Club&Ciliated	Sox2																		
		Mesothelial	MsIn											1				1			
		B cell	Cd791		1			1					1	1				1			
		T & NK	Cd3e, Ncr1		 	 		 					-					-			
		Dentritic & IM	C1qa, Xcr1																		
		Alveolar		-		1	-	1	1	1	-	1	1	1	1	-	1	1	1		
		macrophage	Ear1																		
		Monocyte	Ly6c2																		
		Neutrophil	Ly6c2, Ly6g																		

		Car4* EC	Car4, Apln, Cdh5					0% of		18% of				14% of			
VEGFRA- LacZ; CD1 background	Lung		-	-		1		ECs 90% of		ECs 71% of				ECs 76% of			-
	Lung endothelial	Plvap* EC	Plvap, Aplnr, Cdh5 Vwf, Plvap, Gja5					ECs		ECs				ECs			(54)
	cells (EC) only	Vwf*EC	(arterial), Nr2f2 (venous)											8.3% of ECs			(51)
		Lymphatic EC	Prox1, Nr2f2											1.3% of ECs			
		Mac I	Cd68, Gal, Mki67, Mcm5, Ccr2, Pparg						75% of CD45+		0% of CD45+		0% of CD45+			0% of CD45+	
		Mac II	Cd68, Itgax, Adgrl3, Acp5														
		Mac III	Cd68, Itgax, Car4						20% of		45% of		45% of			30% of	
		Mac IV	Cd68, C1qa, Ccl12, Mrc1						CD45+		CD45+		CD45+			CD45+	
		Mac V	Cd68, Plac8														
C57BL/6		cDC1	Batf 3, Itgae, Irf8, Xcr1, Cadm1														
	CD45 ⁺	cDC2	Batf 3, Cd209a, Sirpa														(10)
C5/BL/6	cells only	Mig-DC	Batf 3, Mreg, Ccl5, Ccr7						14% of		25% of		18% of			12% of	(13)
		Mast cells	Mcpt4, Tpsb2, Cma1						CD45+		CD45+		CD45+			CD45+	
		Basophils	Mcpt8, II6, Hgf														
		Neutrophils	Retnlg, S100a8, S100a9, Stfa1, Stfa2														
		B cells	Ms4a1														
		T cells	Cd3e						2% of CD45+		25% of CD45+		30% of CD45+			60% of CD45+	
		NK cells	Gzma						CD45+		0543		0545			. 0545	
		Vas-Endo	Areg Sox17, Emcm, Plvap,								26.94%						
			Clec1a Prox1, Thy1, Ccl21b,														4
		Lym-Endo	ccl21a Pdpn, Aqp5, Ager,								0.47%						=
		AT1	Hopx								5.04%						_
		AT1/AT2	Muc1+/Pdpn+, Egfr, Shh								5.87%						
		AT2	Sftpb, Slc34a2, Abca3, Lpcat1								10.56%						
		Club	Scgb1a1, Scgb3a2, Cyp2f2, Krt15								0.52%						
		Sox2 ^{high}	Sox2, Foxj*/Krt15*, Katnal2, Hs3st6								0.59%						
		Ciliated	Foxj1, Ccdc113, Lrrc6								0.51%						-
		Proliferative	Mki67, Top2a, Hells, Ighm, Hist1h2bj								0.36%						=
		lymphocyte B lymphocyte	Ighm, Igkc, Cd79a,								0.72%						-
C57BL/6J	Whole lung	T lymphocyte	Cd79b, Cd19, Ms4a1 Cd3g, Cd3d, Cd7,								0.49%					 	(17)
	iung		Trbc1, Trbc2 Fcer1a, Cd200r3,													\vdash	-
		Basophils	Mcpt8, Cyp11a1 Spi1, Tyrobp, Fcer1g,								0.18%						-
		Macrophage	Fcgr3, Mpeg1, Emr1								6.78%						-
		MatrixFB-1	Tcf21, Ent2, Fn1, Fgf10, Inmt								26.93%						
		MatrixFB-2	Col1a1, Col1a2, Agtr2, Mfap5,								2.58%						
			Sfrp2+/lgfbp5+ Pdgfrb, Notch3,														-
		Pericyte-1	Map3k7cl, Mustn1, Acta2								1.25%						
		Pericyte-2	Pdgfrb, Notch3,								2.68%						
		MyoFB-1	Agtr1a, Vsnl1, Art3 Tgfbi, Pdgfra+/Acta2								3.05%					\vdash	1
		MyoFB-2	Tgfbi, Pdgfra+/Acta2+								3.01%						
		Smooth muscle fibroblast	Tgfbi, Pdgfra ⁻ /Acta2+,								1.47%						1
		TIDIODIAST	Actg2, Cnn1, Des				1								1		

	N/A	Mesenchymal cells	Col1a1											
Data are from LungGENS		AT1 cells	Aqp5, Hopx											
		Alveolar myofibroblasts	Acta2 ^{high} , Pdgfra, Fgf18											(18)
		Matrix fibroblasts	Tcf21, Fgf10											
		Pdgfra-high	Acta2, TagIn									43.70% of Pdgfra+	40.11% of Pdgfra+	
Pdafra-		Pdgfra-low (incl. lipofibroblasts)	Fgf10, Wnt2, some also Plin2									41.52% of Pdgfra+	12.97% of Pdgfra+	
Pdgfra- GFP; C57BL/6 background	PDGFRA ⁺ cells only	Ploriferative cells	Cks2, Top2a									6.02% of Pdgfra+	N/A	(28)
background		Airways Smooth Muscle cells	Lgr6									5.71% of Pdgfra+	37.93% of Pdgfra+	
		Matrix producing cells	Dcn, Col1a1, Col3a1, Col14a1					·				3.06% of Pdgfra+	9.00% of Pdgfra+	

AT1, alveolar type 2 cell; AT2, alveolar type 2 cell; DC, dendritic cell; EC, endothelial cell; FB, fibroblast; ILC, innate lymphoid cell; Lym, lymphatic; N/A, non-applicable; NK, natural killer cells; SMC, smooth muscle cell; Vas, vascular.