

**Supplementary Table 1: List of antibodies used in the study**

<b>Antigen</b>	<b>Manufacturer</b>	<b>Catalog number</b>	<b>Clone</b>	<b>Dilution</b>
Rabbit anti-cleaved-caspase-3 antibody, unconjugated	Cell Signaling	9664 RRID: AB_2070042	5A1E	1:400
Rabbit anti-cleaved-caspase-8 antibody, unconjugated	Cell Signaling	8592 AB_10891784	D5B2	1:200
Rat anti-Gata 3 antibody, unconjugated	Thermo Fisher	14-9966-82 AB_1210519	TWAJ	1:100
Chicken anti-Keratin 14 antibody, unconjugated	BioLegend	906001 AB_2565055	Polyclonal	1:500
Guinea pig anti-Keratin 71 antibody, unconjugated	Progen	GP-K6IRS1 AB_2716781	Polyclonal	1:100
Rat anti-CD8a antibody, unconjugated	BioLegend	100702 AB_312741	53-6.7	1:100
Rat anti-CD4 antibody, unconjugated	BioLegend	100406	GK1.5	1:100
Anti-alpha smooth muscle actin	Abcam	ab5694	Polyclonal	1:100
Rat anti-CD31 antibody	BioLegend	102514	MEC13.3	1:100
Anti-GZB antibody	BioLegend	515406	GB11	1:500
Anti-AE13 antibody	Santa Cruz Biotechnology	sc-57012	sc-57012	1:100
Anti-K82 antibody	Progen	GP-HHB2	Polyclonal	1:100
Anti-Lck antibody	Santa Cruz Biotechnology	sc-433 AF647	3A5	1:100
Anti-γ-tubulin	Sigma-Aldrich	T5326	GTU-88	1:500
Anti-H60	R&D Systems	MAB1155	205326	1:100
Hamster anti-mouse CD103 antibody, PE/Cy7 conjugated	BioLegend	121426	2E7	1:100
Mouse anti-mouse H-2Kk (MHC I) antibody, FITC conjugated	BioLegend	114905	36-7-5	1:100
anti-mouse CD16/32	Biologend	156604	S17111E	1:50
Donkey anti-rabbit conjugated to Alexa Fluor 488	Invitrogen	A21206		1:200
Donkey anti-rabbit conjugated to Alexa Fluor 647	Thermo Fisher Scientific	A31573		1:200

**Supplementary Table 2 : Rae1 expression by cell cluster**

<b>cluster</b>	<b>p_val</b>	<b>avg_log2FC</b>	<b>pct.1</b>	<b>pct.2</b>	<b>p_val_adj</b>
DP2_AA.derm	4.767025e-11	0.5103628	0.16	0.273	9.158885e-07
IRS, Henle_AA.derm	4.975613e-27	0.2387017	0.463	0.23	9.559646e-23
DP2_UG.derm	6.930502e-03	-0.1231127	0.12	0.252	1.000000e+00
IRS, Henle_UG.derm	1.131614e-05	-0.2030187	0.473	0.246	2.174169e-01
IRS_UG.derm	1.151234e-06	-0.2276423	0.396	0.241	2.211866e-02
DS/DC_UG.derm	2.221640e-03	-0.3663069	0.174	0.253	1.000000e+00
ORS_UG.derm	6.797140e-07	-0.4049061	0.058	0.253	1.305934e-02
ORS_AA.derm	1.157550e-12	-0.5135945	0.151	0.262	2.224001e-08

**Supplementary Table 3 : Ulbp1 expression by cell cluster**

<b>cluster</b>	<b>p_val</b>	<b>avg_log2FC</b>	<b>pct.1</b>	<b>pct.2</b>	<b>p_val_adj</b>
IRS, Henle_AA.derm	1.331081e-58	3.782623	0.076	0.006	2.557405e-54
IRS, Henle_UG.derm	2.526109e-31	2.85335	0.115	0.01	4.853413e-27
DP1_AA.derm	5.086444e-07	-2.443	0.001	0.015	9.772586e-03
DP2_AA.derm	7.765338e-07	-4.613332	0	0.015	1.491954e-02
ORS_AA.derm	5.761572e-04	-3.570635	0	0.013	1.000000e+00

**Supplementary Table 4 : H60c expression by cell cluster**

<b>cluster</b>	<b>p_val</b>	<b>avg_log2FC</b>	<b>pct.1</b>	<b>pct.2</b>	<b>p_val_adj</b>
IRS_UG.derm	7.128159e-154	3.472263	0.235	0.017	1.369533e-149
IRS, Henle_UG.derm	2.033547e-98	2.894091	0.324	0.024	3.907053e-94
IRS_AA.derm	1.113542e-94	3.904486	0.28	0.023	2.139449e-90
DP1_AA.derm	1.923092e-19	-5.45146	0	0.04	3.694837e-15
DP2_AA.derm	2.981917e-15	-6.33015	0	0.037	5.729158e-11
DS/DC_AA.derm	3.818694e-10	-5.662404	0	0.035	7.336857e-06
IRS, Henle_AA.derm	1.744666e-04	-2.072783	0.006	0.032	1.000000e+00
DS/DC_UG.derm	1.378314e-03	-3.724904	0	0.031	1.000000e+00