

Table SI. Gene expression signature of the dermal sheath cup (DSC)

Gene name	Gene symbol	Ratio of DSC/DP
Gremlin 2, DAN family BMP antagonist	<i>GREM2</i>	7
Gremlin 1, DAN family BMP antagonist	<i>GREM1</i>	6.6
Retinol binding protein 4, plasma	<i>RBP4</i>	4.9
Decorin	<i>DCN</i>	3.7
Platelet-derived growth factor receptor-like	<i>PDGFRL</i>	3.6
Atypical chemokine receptor 1 (Duffy blood group)	<i>ACKR1</i>	3.5
Hyaluronan and proteoglycan link protein 1	<i>HAPLN1</i>	3.4
Dermcidin	<i>DCD</i>	3.3
Asporin	<i>ASPN</i>	2.9
Secretoglobulin, family 1D, member 2	<i>SCGB1D2</i>	2.7
Actin, alpha 2, smooth muscle, aorta	<i>ACTA2</i>	2.6
Perilipin 4	<i>PLIN4</i>	2.6
Docking protein 6	<i>DOK6</i>	2.6
Ectonucleotide pyrophosphatase/phosphodiesterase 4 (putative)	<i>ENPP4</i>	2.6
Interleukin 15	<i>IL15</i>	2.5
Coiled-coil domain containing 80	<i>CCDC80</i>	2.3
Prostaglandin E receptor 3 (subtype EP3)	<i>PTGER3</i>	2.3
Tenascin XB	<i>TNXB</i>	2.2
Fibulin 2	<i>FBLN2</i>	2.1
Deleted in lung and oesophageal cancer 1	<i>DLEC1</i>	2.1
Matrix metalloproteinase 11 (stromelysin 3)	<i>MMP11</i>	2
Leucine rich repeat containing 17	<i>LRRC17</i>	2
Zinc finger protein 791	<i>ZNF791</i>	1.9
Transducin-like enhancer of split 4	<i>TLE4</i>	1.9
Cornichon family AMPA receptor auxiliary protein 3	<i>CNIH3</i>	1.8
Proline-rich 15-like	<i>PRR15L</i>	1.7
DDB1 and CUL4 associated factor 4	<i>DCAF4</i>	1.7
Glycosyltransferase-like 1B	<i>GYLTL1B</i>	1.7
Uncharacterized protein BC008131	<i>LOC142937</i>	1.7
BPI fold containing family C	<i>BPIFC</i>	1.7
Anoctamin 2, calcium-activated chloride channel	<i>ANO2</i>	1.7
Interferon-induced protein 44-like	<i>IFI44L</i>	1.7
Proprotein convertase subtilisin/kexin type 7	<i>PCSK7</i>	1.6

DP: dermal papilla.