

SUPPLEMENTAL DATA

Table S1. TaqMan gene expression assays used for verification of 28 genes by real-time PCR

Genes	Assay ID	Genes	Assay ID	Genes	Assay ID
GAPDH	Hs99999905_m1	AKAP2	Hs00364914_m1	SPRR1A	Hs00954595_s1
ABCG2	Hs00184979_m1	RGS5	Hs00186212_m1	SPRR1B	Hs00824893_m1
p63	Hs00186613_m1	POSTN	Hs01566748_m1	SPRR2A	Hs01655189_sH
EGFR	Hs00193306_m1	LDB2	Hs00609711_m1	SPRR2B	Hs00863465_m1
TarKA	Hs00176787_m1	NNMT	Hs00196287_m1	SPRR2C	Hs00272438_m1
GDNF	Hs01931883_s1	STC1	Hs00174970_m1	SPRR3	Hs00271304_m1
Cx43	Hs00748445_s1	TCF4	Hs00162613_m1	CEACAM1	Hs00989783_m1
K3	Hs00365080_m1	TFPI	Hs00196731_m1	CEACAM6	Hs00366002_m1
K12	Hs00165015_m1	CTHRC1	Hs00298917_m1	HMOX1	Hs00157965_m1
involucrin	Hs00846307_s1				

Table S2. The numbers and percentages of the Present Calls in 54675 probe sets of each GeneChip from 2 arrays

Affimetrix HG	Present Calls			
	Array 1		Array 2	
U133 Plus 2.0	Number	%	Number	%
GeneChip ID				
NAC-1	19792	36.2	20120	36.8
NAC-2	19956	36.5	20394	37.3
SAC-1	19956	36.5	20448	37.4
SAC-2	21105	38.6	21214	38.8
RAC-1	21651	39.6	22089	40.4
RAC-2	22143	40.5	22471	41.1

Mean	20767	38.0	21123	38.6
SD	1005	1.8	975	1.8

Table S3. Affymetrix probe sets and accession numbers for the genes that are known as limbal stem cell associated or differentiation markers.

Limbal SC Markers	Gene Symbol	Affymetrix Probe Sets	Gene Bank Accession No.
ABCG2	ABCG2	209735_at	AF098951
p63	TP73L	209863_s_at, 211194_s_at	AF091627, AB010153
Integrin α9	ITGA9	206009_at, 227297_at	NM_002207, AI479176
integrin β1	ITGB1	1553678_a_at, 211945_s_at	NM_133376, BG500301
EGFR	EGFR	201983_s_at, 201984_s_at	AW157070, NM_005228
enolase α1	ENO1	201231_s_at	NM_001428
Keratin 15	KRT15	204734_at	NM_002275
TrkA	NTRK1	208605_s_at	NM_002529
N-cadherin	CDH2	203440_at	M34064
CEBP-δ	CEBPD	213006_at, 203973_s_at	AV655640, NM_005195
Connexin 43	GJA1	201667_at	NM_000165
E-cadherin	CDH2	201131_s_at	NM_004360
Keratin 12	KRT12	207811_at	NM_000223
Keratin 3	KRT3	217325_at	X05421
Involucrin	IVL	214599_at	NM_005547

Table S4. Affymetrix probe sets and accession numbers for the top up- and down-regulated genes (≥ 6 fold, $P \leq 0.005$) in RAC limbal epithelial progenitors

Gene	Gene Bank	Affymetrix	Gene	Gene Bank	Affymetrix
Symbol	Accession No	Probe Sets	Symbol	Accession No	Probe Sets
AKAP2	NM_007203	202760_s_at	A2M	NM_000014	217757_at
C10orf10	AL136653	209183_s_at	ITM2A	AL021786	202746_at
RGS5	NM_025226	218353_at	CTHRC1	AA584310	225681_at
DARC	NM_002036	208335_s_at	C8orf4	NM_020130	218541_s_at
GIMAP6	NM_024711	219777_at	GIMAP8	AI611648	235306_at
APOLD1	NM_030817	221031_s_at	KRTAP3-2	AJ406932	233534_at
PDK4	AV707102	225207_at	CEACAM1	X16354	209498_at
POSTN	D13665	210809_s_at	C15orf48	AF228422	223484_at
LDB2	NM_001290	206481_s_at	HMOX1	NM_002133	203665_at
NNMT	NM_006169	202237_at	RNASE7	AK023343	233488_at
STC1	AI300520	204595_s_at	C6orf128	AI125204	237016_at
RHOJ	AI583530	235489_at	KRT24	NM_019016	220267_at
EMCN	AF205940	222885_at	SLC6A14	NM_007231	219795_at
CSF2RB	AV756141	205159_at	CEACAM7	NM_006890	206199_at
AQP1	AL518391	209047_at	IL1RL1	NM_003856	207526_s_at
COL15A1	NM_001855	203477_at	SPRR2A	NM_006945	208539_x_at
MSRB3	AW027333	225782_at	SPRR1B	NM_003125	205064_at
TSPAN7	NM_004615	202242_at	SPRR1A	NM_005987	214549_x_at
SLC2A3	NM_006931	202499_s_at	CEACAM6	M18728	211657_at
TCF4	NM_003199	212386_at	CEACAM5	NM_004363	201884_at
TFPI	BF511231	213258_at	SPRR3	NM_005416	218990_s_at