

Supplemental Table S1. Relative expression (ΔC_T) of genes encoding glycosylation enzymes in clonogenic human limbal epithelial cells. High positive ΔC_T values reflect low amplification efficiency. Values in bold indicate that gene expression was significantly higher in abortive colonies compared to clonogenic ($2^{-\Delta C_T}$).

Gene Symbol	RefSeq*	Magnitude of Expression (ΔC_T)	Abortive Fold Change ($2^{-\Delta C_T}$)
<i>N-Acetylgalactosaminyltransferases</i>			
<i>GALNT1</i>	NM_020474	0.63	1.32
<i>GALNT2</i>	NM_004481	1.63	1.16
<i>GALNT3</i>	NM_004482	0.98	0.56
<i>GALNT4</i>	NM_003774	3.72	1.06
<i>GALNT6</i>	NM_007210	4.20	0.40
<i>GALNT7</i>	NM_017423	0.16	1.35
<i>GALNT9</i>	NM_021808	12.72	1.05
<i>GALNT10</i>	NM_198321	11.16	5.15
<i>GALNT11</i>	NM_022087	5.45	0.87
<i>GALNT12</i>	NM_024642	5.07	1.06
<i>GALNT14</i>	NM_024572	2.03	0.59
<i>GALNT16</i>	NM_020692	15.49	0.60
<i>N-Acetylglucosaminyltransferases</i>			
<i>B3GNT2</i>	NM_006577	5.87	2.79
<i>B3GNT3</i>	NM_014256	7.72	1.10
<i>B3GNT4</i>	NM_030765	12.19	0.41
<i>B3GNT8</i>	NM_198540	10.16	0.83
<i>GCNT1</i>	NM_001490	8.75	2.35
<i>GCNT3</i>	NM_004751	7.82	2.04
<i>GCNT4</i>	NM_016591	10.68	11.26
<i>MGAT1</i>	NM_002406	2.38	0.19
<i>MGAT2</i>	NM_002408	7.99	1.29
<i>MGAT4A</i>	NM_012214	5.54	0.08
<i>MGAT4B</i>	NM_014275	3.80	1.48
<i>MGAT5</i>	NM_002410	5.61	2.98
<i>MGAT5B</i>	NM_144677	15.77	0.55
<i>OGT</i>	NM_181673	2.02	0.28
<i>POMGNT1</i>	NM_017739	4.61	1.18
<i>Galactosyltransferases</i>			
<i>B4GALT1</i>	NM_001497	2.53	1.52
<i>B4GALT2</i>	NM_003780	0.11	0.92
<i>B4GALT3</i>	NM_003779	1.85	1.57

<i>B4GALT5</i>	NM_004776	0.04	0.87
<i>C1GALT1</i>	NM_020156	0.15	0.54
<i>Glucosyltransferases</i>			
<i>UGGT1</i>	NM_020120	2.29	2.48
<i>UGGT2</i>	NM_020121	4.34	0.90
<i>Mannosidases</i>			
<i>EDEM1</i>	NM_014674	3.00	0.87
<i>EDEM2</i>	NM_018217	3.91	1.05
<i>EDEM3</i>	NM_025191	4.30	0.92
<i>MAN1A1</i>	NM_005907	6.89	1.18
<i>MAN1A2</i>	NM_006699	1.29	1.11
<i>MAN1B1</i>	NM_016219	4.07	1.44
<i>MAN1C1</i>	NM_020379	3.20	0.72
<i>MAN2A1</i>	NM_002372	9.07	3.43
<i>MAN2B1</i>	NM_000528	0.74	1.19
<i>MANBA</i>	NM_005908	5.69	8.79
<i>Mannosyltransferases</i>			
<i>POMT1</i>	NM_007171	7.76	0.34
<i>POMT2</i>	NM_013382	1.54	1.98
<i>Galactosidases, glucosidases and hexosaminidases</i>			
<i>GANAB</i>	NM_198334	2.31	1.04
<i>GLB1</i>	NM_000404	1.70	0.47
<i>HEXA</i>	NM_000520	1.42	0.71
<i>HEXB</i>	NM_000521	-0.80	1.04
<i>MOGS</i>	NM_006302	7.77	1.07
<i>PRKCSH</i>	NM_002743	4.39	1.58
<i>Fucosidases and fucosyltransferases</i>			
<i>FUCA1</i>	NM_000147	5.47	1.12
<i>FUCA2</i>	NM_032020	4.44	2.11
<i>FUT8</i>	NM_178157	4.55	3.83
<i>FUT11</i>	NM_173540	3.40	0.70
<i>POFUT1</i>	NM_172236	8.73	1.68
<i>POFUT2</i>	NM_133635	6.42	0.06
<i>Sialidases</i>			
<i>NEU1</i>	NM_000434	3.24	0.55
<i>NEU2</i>	NM_005383	12.90	1.35
<i>NEU3</i>	NM_006656	5.49	2.50

<i>NEU4</i>	NM_080741	14.57	0.71
<i>Sialyltransferases</i>			
<i>ST3GAL1</i>	NM_173344	5.44	0.93
<i>ST3GAL2</i>	NM_006927	7.83	0.25
<i>ST6GAL1</i>	NM_003032	4.38	0.09
<i>ST6GALNAC1</i>	NM_018414	5.95	2.43
<i>ST8SIA4</i>	NM_175052	5.70	0.27
<i>Mannose-6-phosphate synthesis and catabolism</i>			
<i>GNPTAB</i>	NM_024312	2.39	0.77
<i>GNPTG</i>	NM_032520	3.43	1.83
<i>NAGPA</i>	NM_016256	7.36	1.12
<i>Other glycosylation genes</i>			
<i>AGA</i>	NM_000027	3.92	0.30
<i>C1GALT1C1</i>	NM_152692	3.02	0.43

*Reference sequence database at NCBI (<https://www.ncbi.nlm.nih.gov/refseq/>)