

## Supplementary Figures

Figure S1: Cultivation of LECs in various culture conditions. Isolated LECs cultured on 5% matrigel, 0.05 mg/ml fibronectin, or a mixture of 5% matrigel + 0.05 mg/ml fibronectin in CnT20 or 10% DMEM for 15 days. Scale bar = 100  $\mu$ m.

Figure S2: Stem cell marker analysis of ABCG2+/ABCB5+ LESC. Total mRNA was isolated from ABCG2+/ABCB5+ LESC cultured in 10% DMEM, CnT20, or CnT30 and gene expression was assessed by RT-PCR. \*\*  $p < 0.01$  vs DMEM.

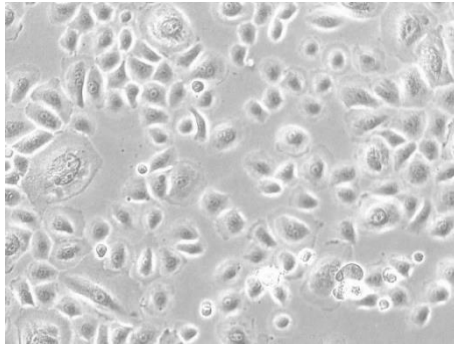
Figure S3: Colony formation analysis of ABCG2+/ABCB5+ LESC. ABCG2+/ABCB5+ LESC were seeded and cultured for 8 days. Colony formation was monitored by staining with antibodies to ABCG2 and P63 $\alpha$ . Scale bar = 500  $\mu$ m and 200  $\mu$ m.

Supplementary Table S1

p63 $\alpha$	(sense)- accatcagaagatggtgcga	OCT4	(sense)- aagcgatcaagcagcgacta
	(antisense)- ccagggttcgtgtactgtggc		(antisense)- gaagtgagggtcccatagc
ABCG2	(sense)- ttggctgtcatggcttcagt	SOX2	(sense)- gaccagctcgcagacctaca
	(antisense)- ctggtgcattgagtcctggg		(antisense)- gaagaggtaaccacagggggg
CK3	(sense)- gggcgaggagtacaggatgt	NANOG	(sense)- cagaaaaacaactggccgaa
	(antisense)- gccgtaacctcctccatagc		(antisense)- ggtctggttgetccacattg
CK19	(sense)- acacactggcagaaacggag	C-MYC	(sense)- agcaacaaccgaaaatgcac
	(antisense)- gacttgatgtccatgagccg		(antisense)- ccgttttagctcgttctcc
Integrin $\alpha$ 9	(sense)- atgggaaccagaagaggtg	KLF4	(sense)- taccaagagctcatgccacc
	(antisense)-cagcagcaggaagatgagga		(antisense)- ctttgttaggttttggccgc
CK12	(sense)- ggagattgagacctaccgcc	GAPDH	(sense)- atggggaaggtgaaggtcg
	(antisense)- attttcgggttttggttgg		(antisense)- ggggtcattgatggcaacaata

# Supplementary Figure 1

LEC: Limbal epithelial cells



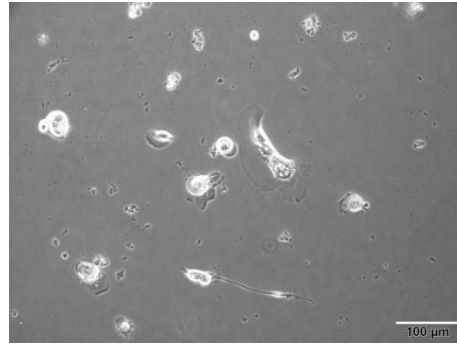
CnT20



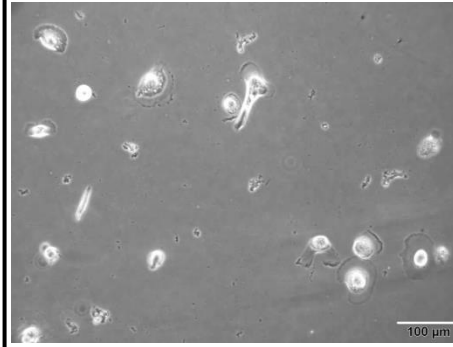
DMEM  
(10% Serum)



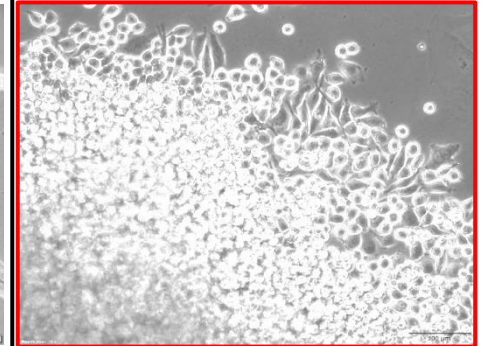
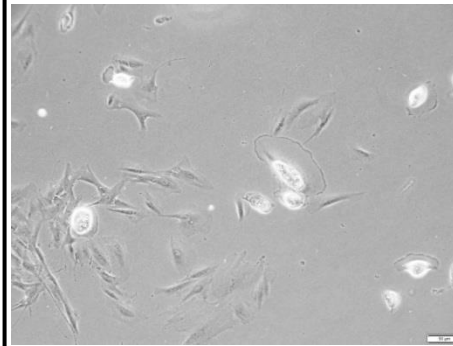
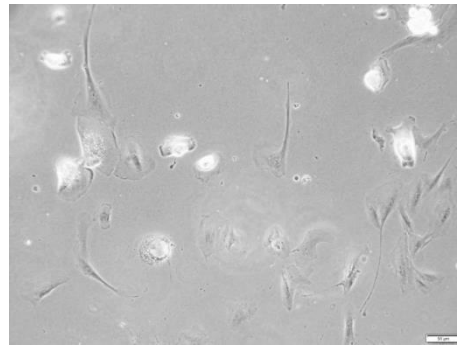
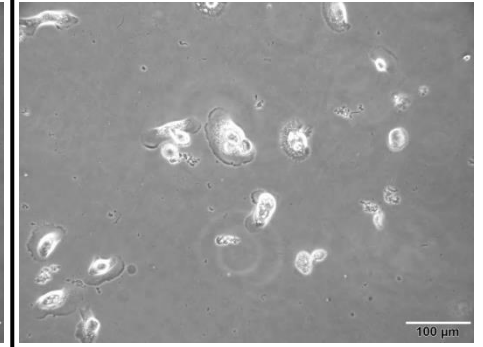
Matrigel 5%



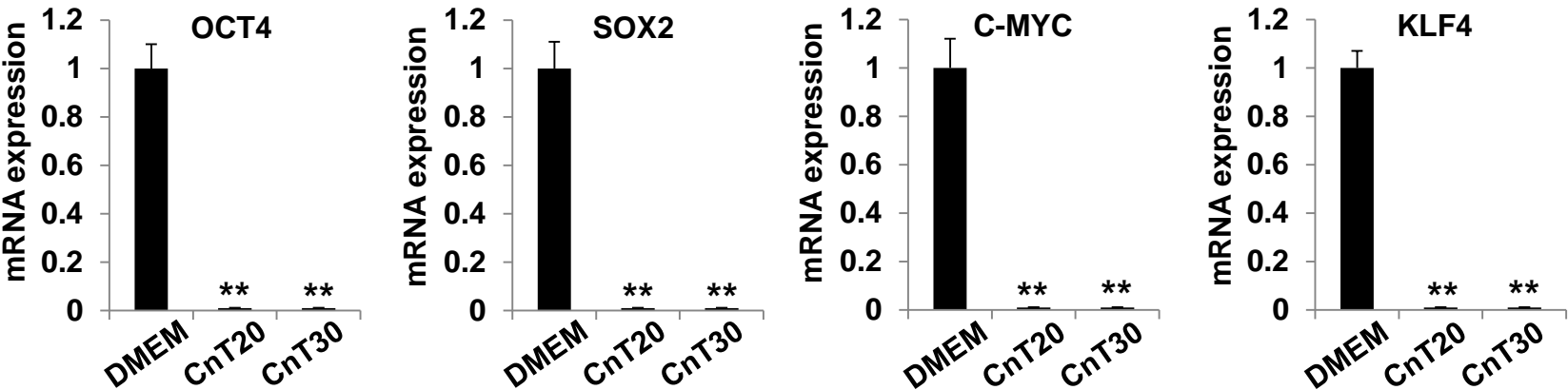
Fibronectin (0.05mg/ml)



5%matrigel+  
0.05mg/ml fibronectin



Supplementary Figure 2



# Supplementary Figure 3

