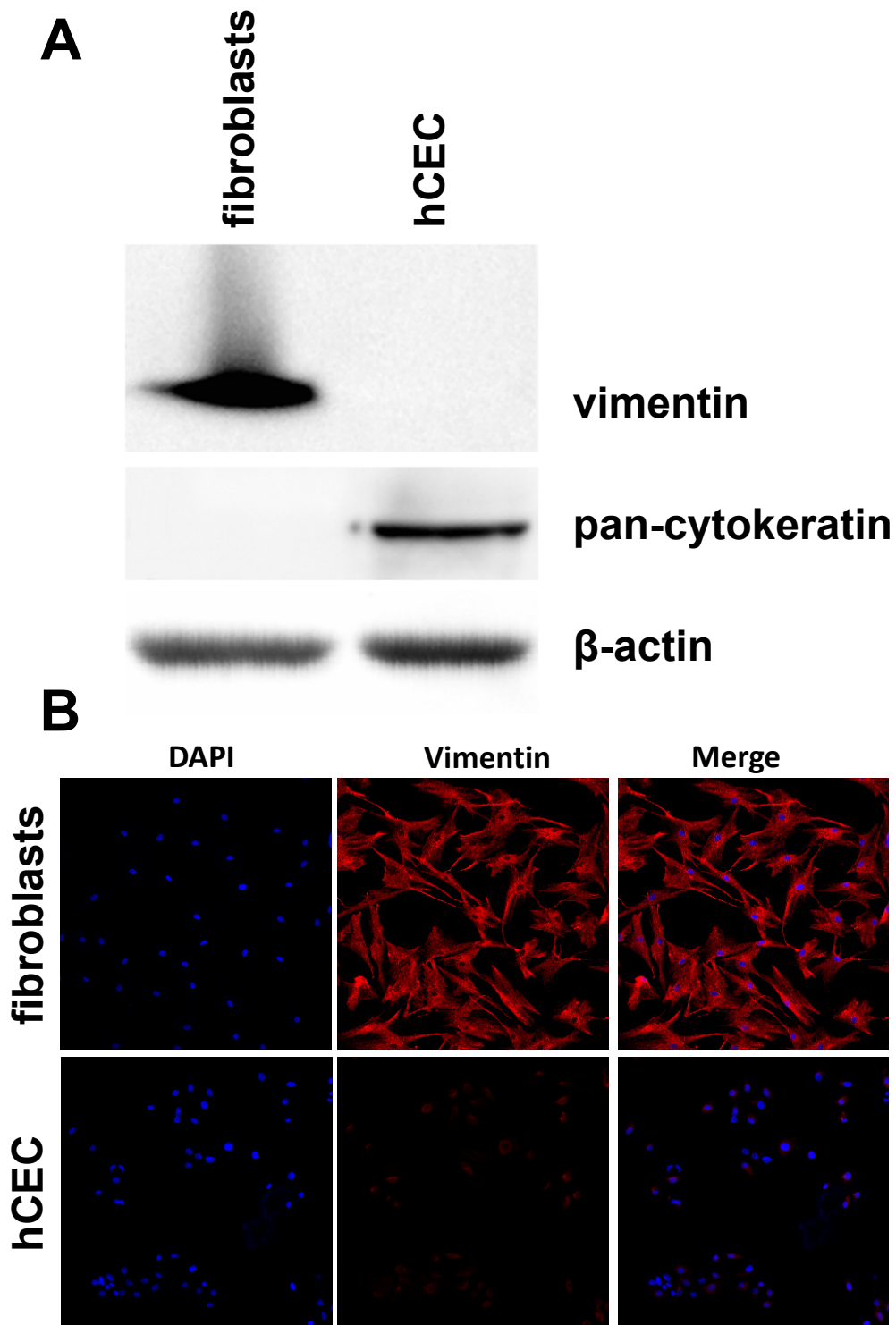


## Supplementary Figure 1



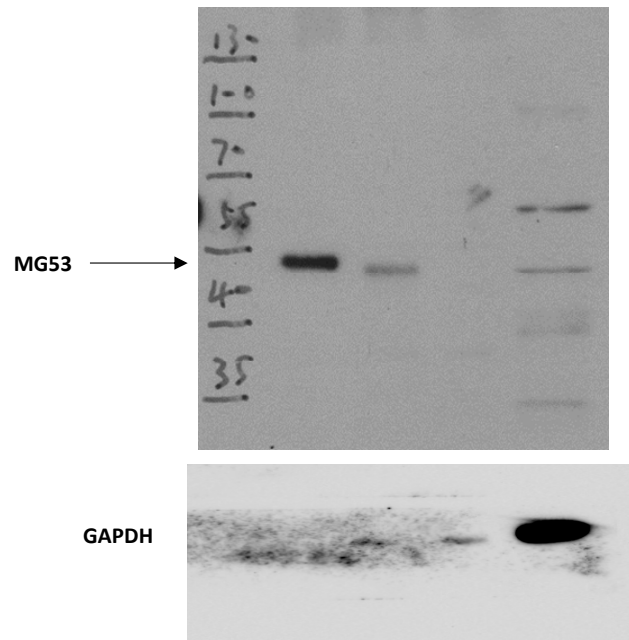
**Supplementary Figure 1. Authentication of primary corneal fibroblasts.** (A) Following isolation of corneal fibroblasts Western blot analysis was performed. Vimentin was used as a marker of fibroblasts and cytokeratin was used as a marker of corneal epithelial cells. The fibroblasts were positive for vimentin and negative for cytokeratin, while human corneal epithelial cells (hCEC) were positive for cytokeratin and negative for vimentin. (B) Immunostaining of vimentin was performed. Fibroblasts were positive for vimentin, while hCEC is negative for vimentin.

## Supplementary Table 1

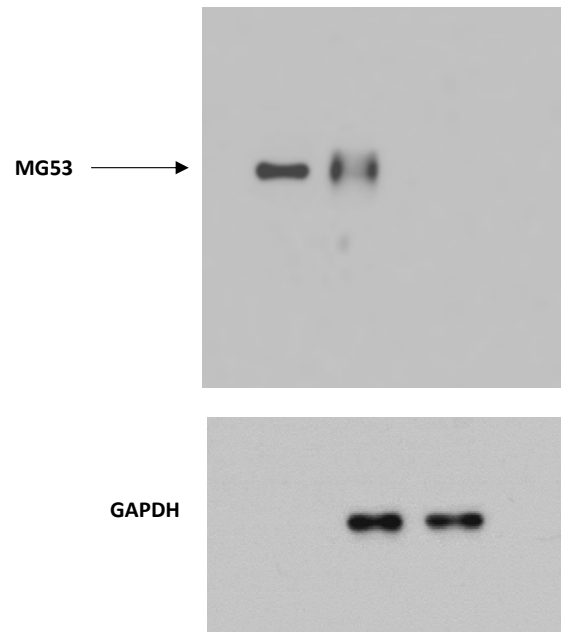
### The sequences of oligos used in the paper

Name	Sequence
MG53 gRNA-1	5'-AGAACGGTGCCATCCGCCGC-3'
MG53 gRNA-2	5'-CGGGCGCGTCGAACAGCTGC-3'
$\alpha$ -SMA forward primer	5'-AACACGGCATCATCACCAA-3'
$\alpha$ -SMA reverse primer	5'-AGGCGTAGAGGGAAAGCA-3'
fibronectin forward primer	5'-CCTCTGACGGCGGAACAAACGACCA-3'
fibronectin reverse primer	5'-AGAGGGTCCCACGTTGTACTGCTTG-3'
GAPDH forward primer	5'-GTGAAGGTGGAGTGAACGGATTTG-3'
GAPDH reverse primer	5'-TTTGATGTTGGCGGGAT-3'
MG53 genotyping forward primer	5'-CCTTCTGCGTCAGGAACTGTCCTGC-3'
MG53 genotyping reverse primer	5'-CAGCAGTCCCACCCTGCCTTCACCG-3'

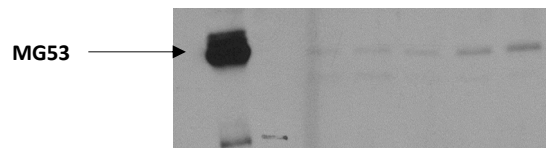
**Figure 1A**



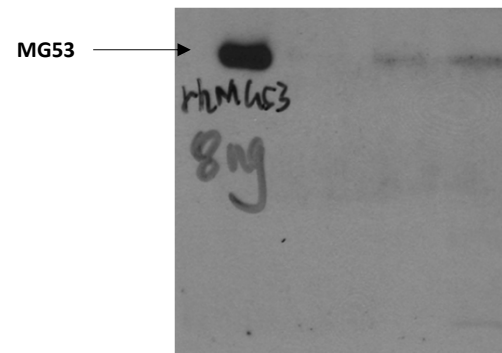
**Figure 1B**



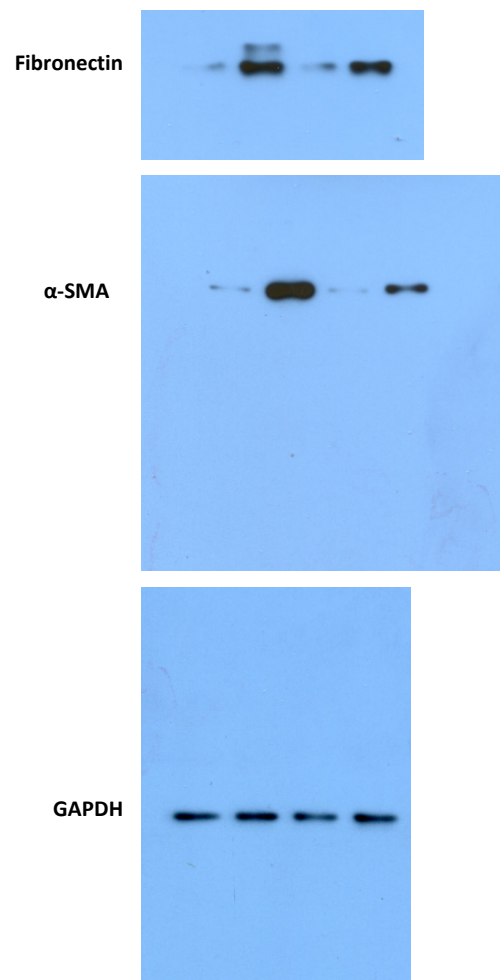
**Figure 1C**



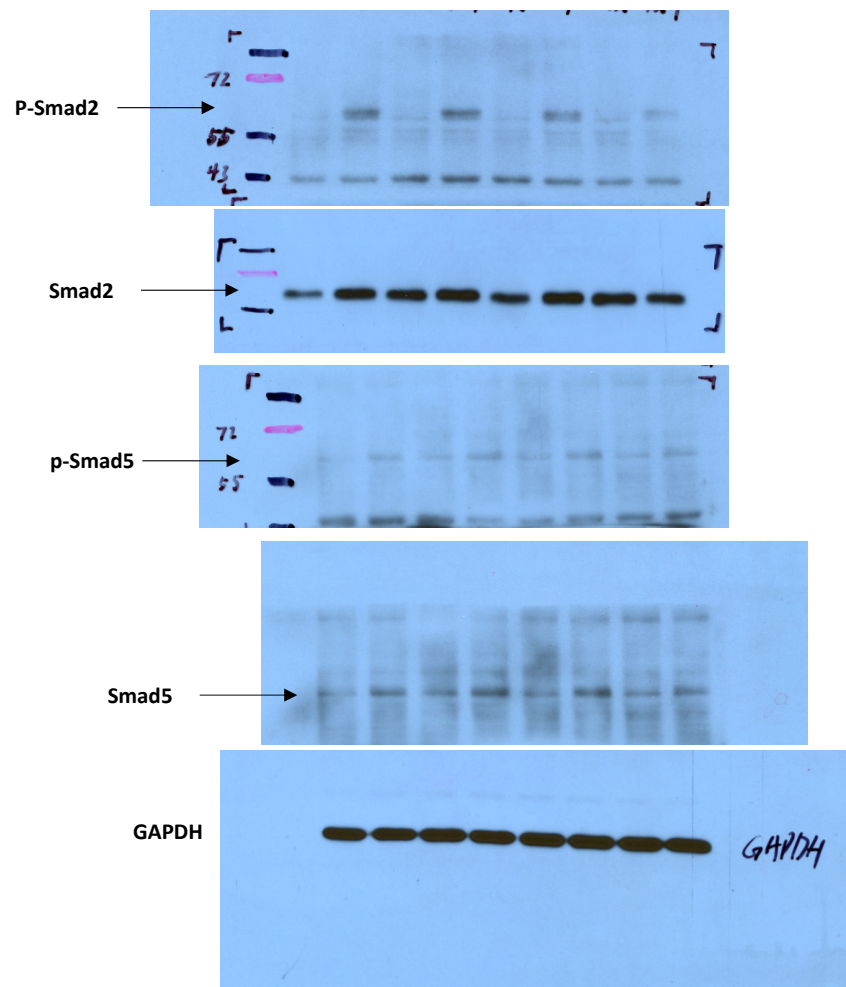
**Figure 1D**



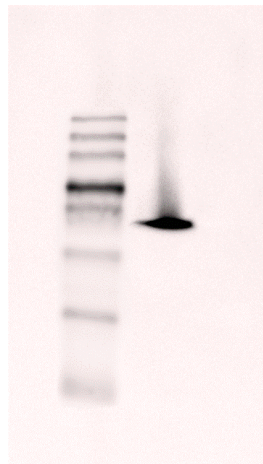
**Figure 5C**



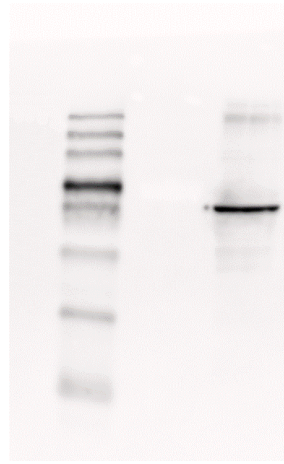
**Figure 5E**



**Supplementary Figure 2**



**Vimentin**



**Pan-cytokeratin**



**$\beta$ -actin**