

## SUPPLEMENTARY INFORMATION

**Supplemental Table S1. Primers used in qPCR.**

**Supplemental Table S2. qPCR: Assymetrical values for the indicated genes using the  $2^{-\Delta\Delta C_t}$  method.**

**Supplemental Figure S1. Luciferase activity in SV40 MEFs stably transfected with the TGF- $\beta$  responsive element.** Stable Transfection of the TGF- $\beta$  responsive element was carried out as described in materials and methods. Luciferase activities were measured in cells seeded monolayer (in the presence or absence of recombinant TGF- $\beta$ 1 or activin A) or in cells extracted from collagen gels as described in materials and methods. Values are calibrated to the luciferase activity produced by exogenous addition of 0.5 ng/ml of recombinant TGF- $\beta$ 1.

**Supplemental Figure S2. Negative control for  $\alpha$ 11 protein expression in SV40 MEFs within attached gels.** Cells in attached collagen gels were collected as described in materials and methods at 24 and 96h. Cell lysates were subjected to western blots using  $\alpha$ 11 polyclonal antibody to  $\alpha$ 11 or the corresponding preimmune serum, both used at the same concentration (1:500) and under the same conditions. The blots for  $\alpha$ 11 was exposed for longer time to better appreciate its up-regulation.

**Supplemental Figure S3. Positive control for TGF- $\beta$  monoclonal antibody.** Cells either remained unstimulated, were treated with 5 ng/ml of recombinant TGF- $\beta$ 1 alone, or were treated with 5 ng/ml of TGF- $\beta$ 1 that had been previously preincubated with 10  $\mu$ g/ml of anti-TGF- $\beta$  in serum-free DMEM at 37°C for 30 min. Serum was removed prior to the addition of TGF- $\beta$ 1 with or without its blocking antibody.

**Supplemental Figure S4. Induction of  $\alpha$ 11 and  $\alpha$ -SMA by activin A in corneal fibroblasts grown on collagen I monolayers (longer exposure).** The upregulation of  $\alpha$ 11 and  $\alpha$ -SMA caused by activin A was less prominent from that produced by TGF- $\beta$  in corneal fibroblasts. In order to clearly appreciate such upregulation, membranes with the corresponding samples had to be exposed for a longer period.

**Supplemental Figure S5. Immunolocalization of  $\alpha$ -SMA in corneal fibroblasts grown on collagen I (lower magnification).** Cells remained untreated (upper left), were stimulated with 5 ng/ml of TGF- $\beta$ 1 only (upper right) or treated with 5 ng/ml of TGF- $\beta$ 1 and siRNA (100 nM) to  $\alpha$ 11 (lower right) or an off-target siRNA (negative control, NC; lower left). The exposure time when taking pictures was identical in all conditions.

## Supplementary Table S1

### Sequences of primers used for qPCR.

Target gene	Forward (5'-3')	Reverse (5'-3')	Annealing T (°C)
<b>TGF-<math>\beta</math>1</b>	ACAATTCCTGGCGTTACCTT	G TTCAGCCACTGCCGTACAAC	55
<b>Activin <math>\beta</math>A</b>	TGAAGAAGAGACCCGATGTCA	GCTTTCTGATCGCGTTGAG	55
<b>ALK4</b>	TGCTGCCCGTCTGACA	TGCCCAGGTTCTTTGTGTAGG	54
<b>ALK5</b>	AGCATTGGCAAAGGTCGG	ATCTCTGCCTCTCGGAACCAT	54
<b><math>\alpha</math>11</b>	GACAGCACCGCAGACGAT	GCTGTTTGCCTTGACCTCGAA	58
<b>GAPDH</b>	CGAGACCCCACTAACATCAA	TTCACACCCATCACAAACAT	58

## Supplementary Table S2

qPCR: Assimetrical error values for the indicated genes

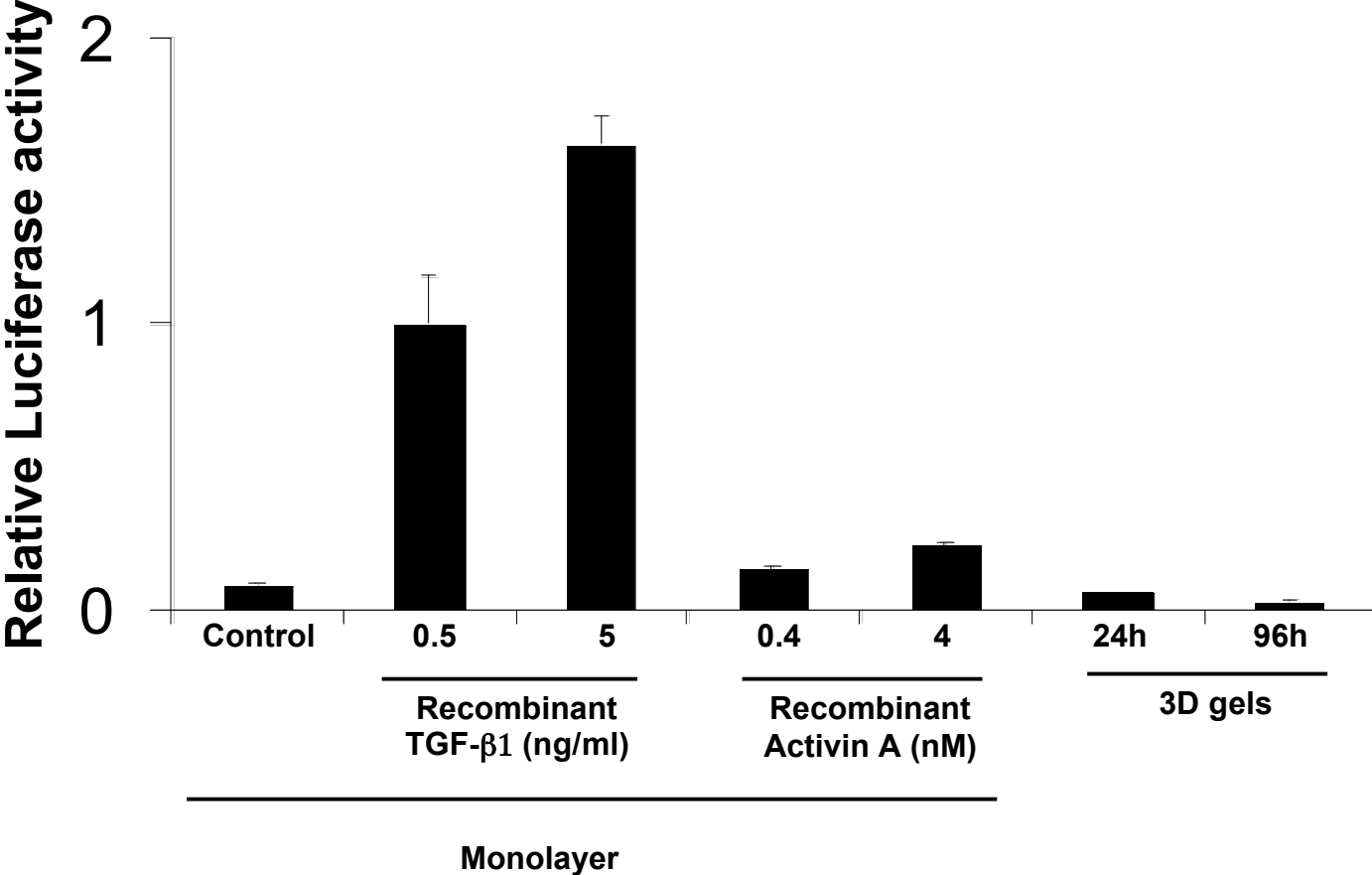
### Negative error bar values

	$\alpha 11$	TGF- $\beta 1$	Act $\beta A$	ALK5	ALK4
<b>24 h attached</b>	0,536616	0,522505	0,13494	0,503166	0,387565
<b>48 h attached</b>	0,44143	0,486055	0,129567	0,341399	0,356489
<b>72 h attached</b>	0,642768	0,426852	0,114066	0,348133	0,312786
<b>96 h attached</b>	0,355672	0,431622	0,15991	0,14596	0,271712
<b>Monolayer</b>	0,081049	0,090772	0,302756	0,077886	-0,21198
<b>2h floating</b>	0,102495	0,158988	0,065923	0,101382	0,093065
<b>8h floating</b>	0,053125	0,233605	0,065096	0,220634	0,168509
<b>24h floating</b>	0,223843	0,975517	0,111938	1,096156	0,86358
<b>48h floating</b>	0,078019	0,220806	0,098038	0,679024	0,122768

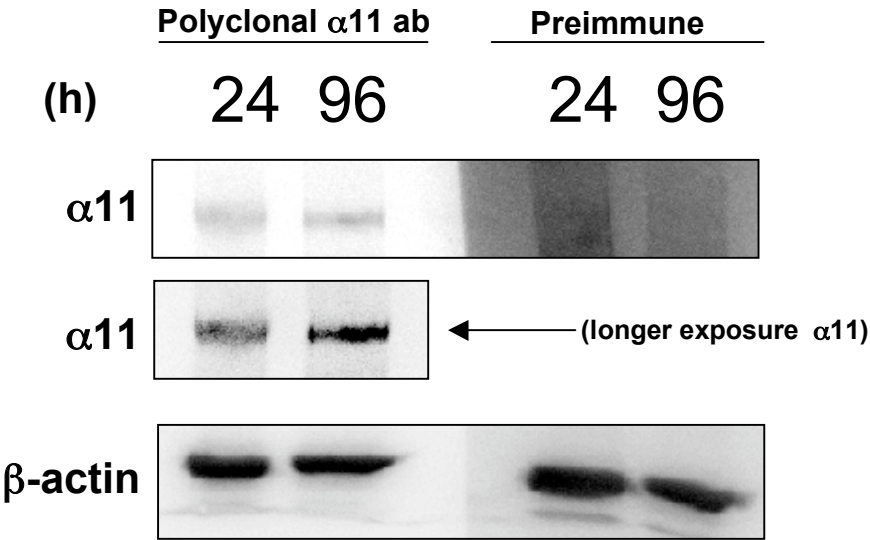
### Positive error bar values

	$\alpha 11$	TGF- $\beta 1$	Act $\beta A$	ALK5	ALK4
<b>24 h attached</b>	0,639905	0,585214	0,176895	0,579094	3,511046
<b>48 h attached</b>	0,499287	0,540049	0,16767	0,369269	3,762373
<b>72 h attached</b>	0,731121	0,473477	0,15109	0,377193	3,663334
<b>96 h attached</b>	0,397	0,493093	0,242716	0,150585	3,432427
<b>Monolayer</b>	0,088198	0,099834	0,434219	0,084465	0,519373
<b>2h floating</b>	0,118022	0,178477	0,087105	0,110271	0,944097
<b>8h floating</b>	0,058802	0,275206	0,087377	0,249379	1,384833
<b>24h floating</b>	0,384774	1,681832	0,20305	1,931775	4,932162
<b>48h floating</b>	0,088202	0,243077	0,129011	0,762664	4,923919

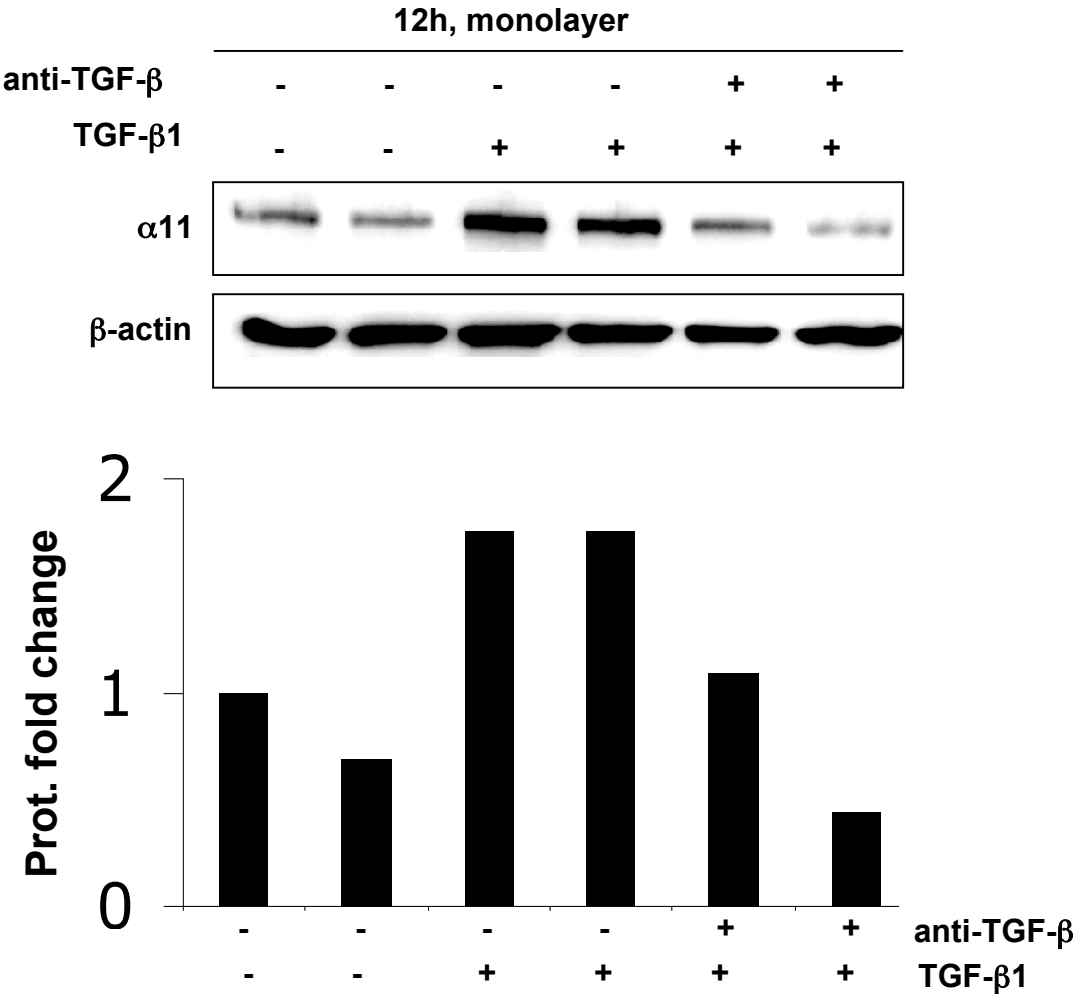
# Supplementary Figure S1



# Supplementary Figure S2



# Supplementary Figure S3



# Supplementary Figure S4

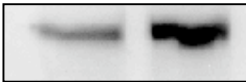
## Longer exposure

72h, monolayer

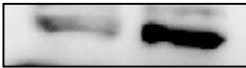
Act A

- +

$\alpha$ 11



$\alpha$ -SMA

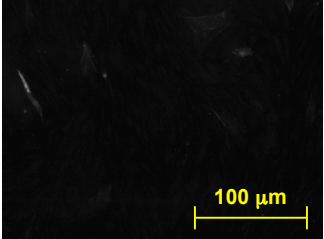


GAPDH

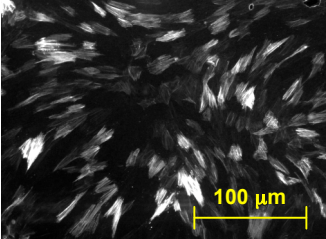


# Supplementary Figure 5

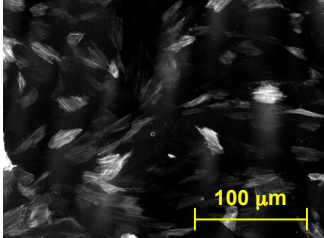
Untreated



TGF-β1



TGF-β1 + NC siRNA



TGF-β1 + α11siRNA

