

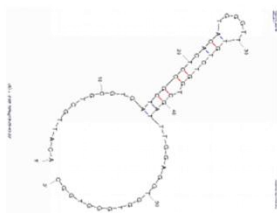
SUPPLEMENTARY FIGURES

A

S58 :

5'-ACATTGCTGCGTGCCTCACATGGGTTTGTCTGGTCGATTTGGAGGTGGTGGGTGGC-3'

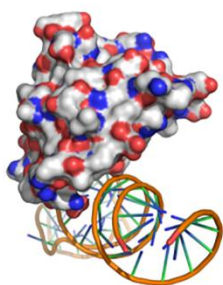
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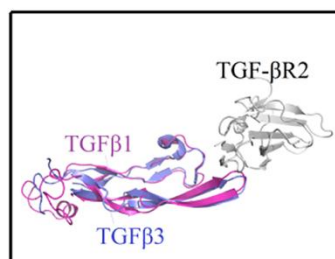
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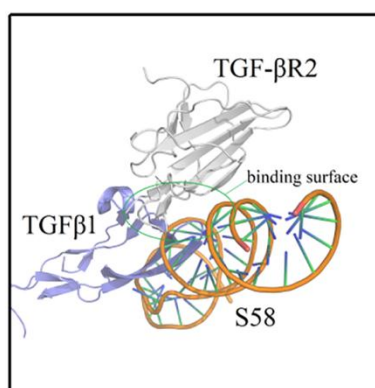
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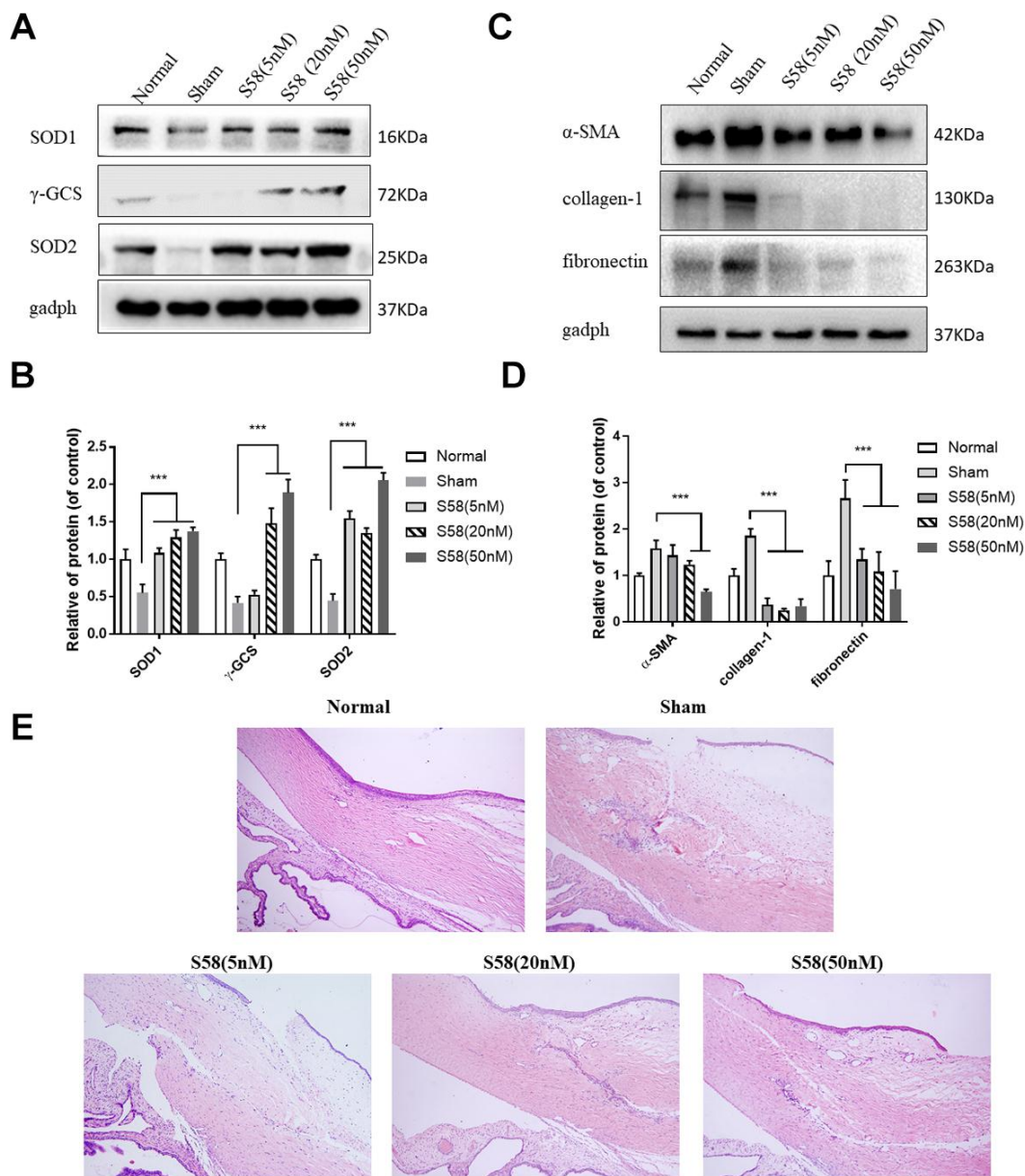
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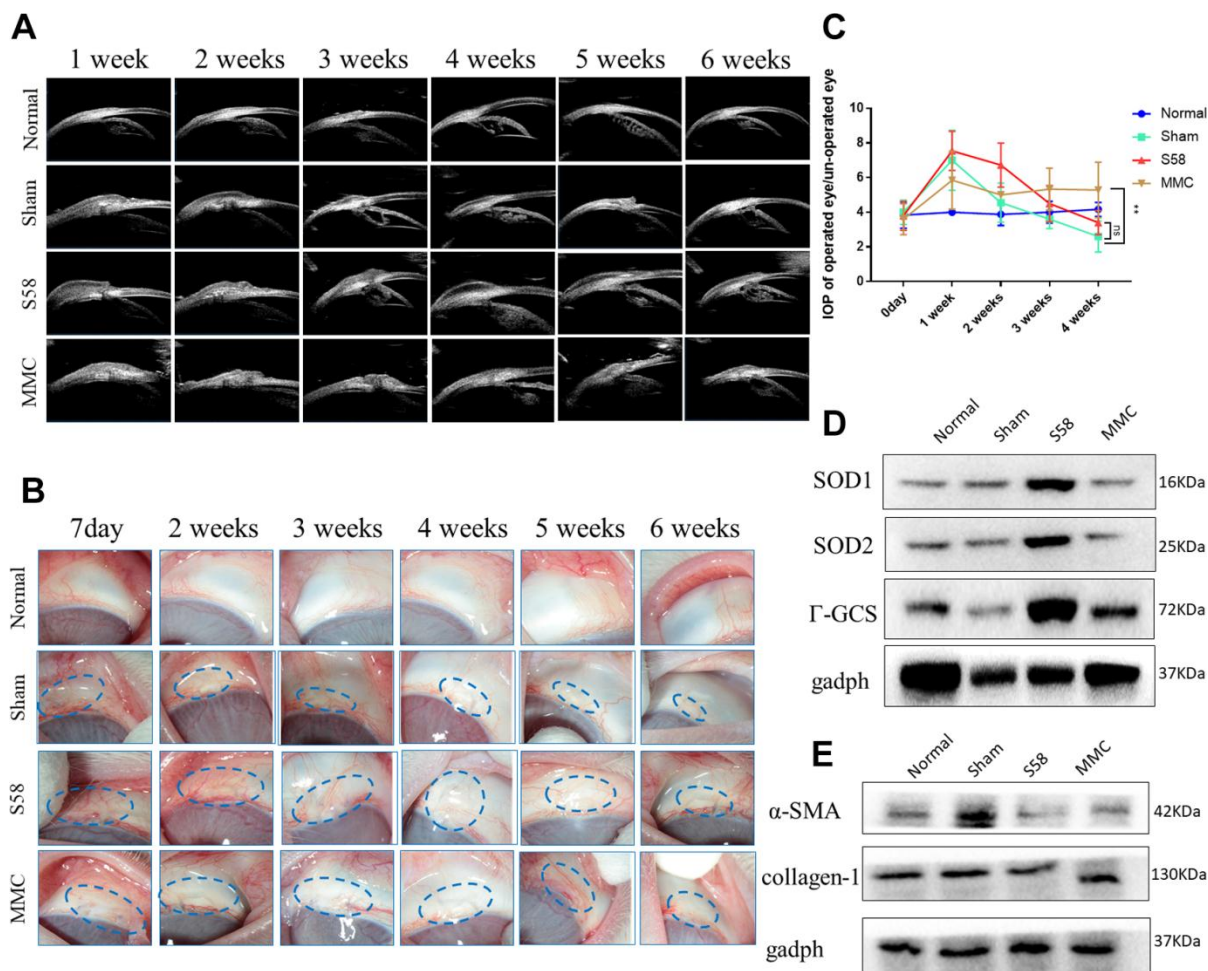
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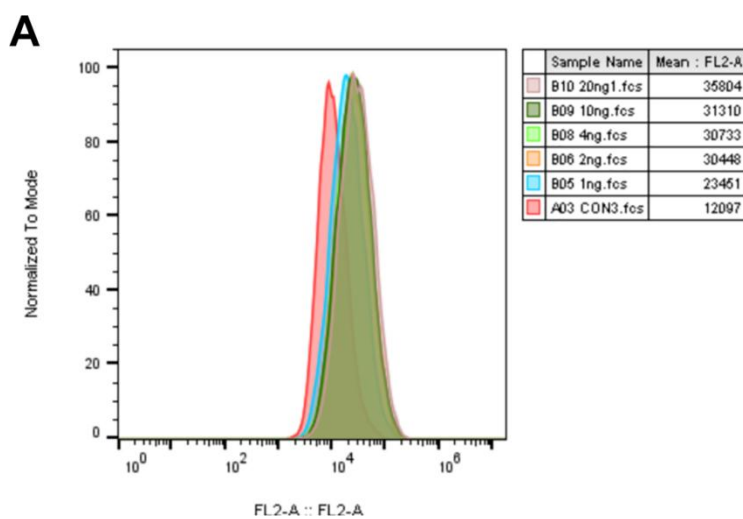
Supplementary Figure 1. (A, B) Based on the primary structure of the aptamer S58, the DNA mfold program was used to conduct the secondary structure analysis of aptamer S58. (C) The most likely binding conformation of aptamer S58 to bind to TR β II extracellular domain proteins. (D, E) The nucleic acid adaptor S58 binds to the site of TR β II, which belongs to the interaction site of TR β II-TGF- β 1/3. (F) Conformation superposition of crystalline TR β II, TGF- β 1 and S58.



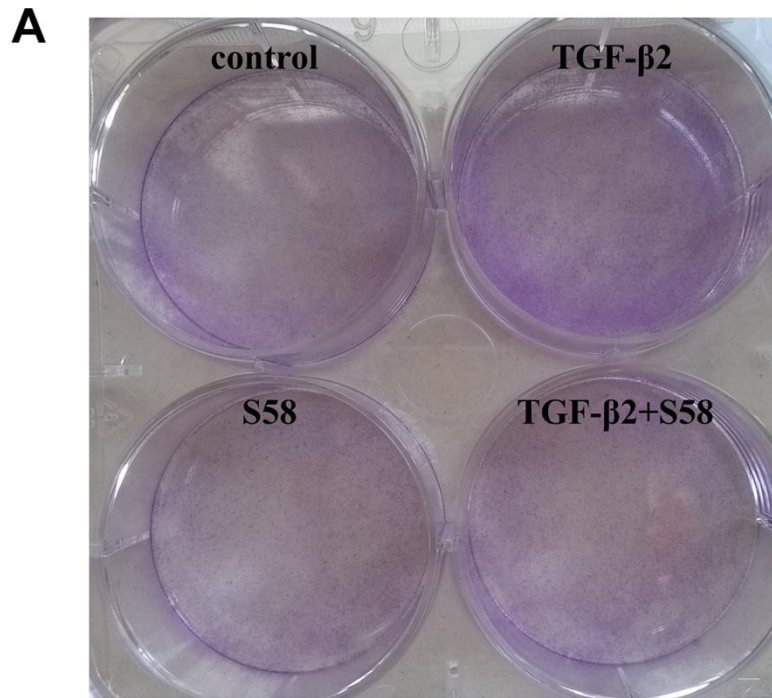
Supplementary Figure 2. Effects of S58 on filtering blebs on postoperative 14 day after GFS. (A–D) Effects of different doses of S58 (5 nM/drop, 20 nM/drop and 50 nM/drop) on the levels of fibrotic proteins and antioxidants proteins analyzed by western blot and quantification of gray values. **(E)** Representative images of H&E to analyze fibrotic levels.



Supplementary Figure 3. Effects of S58 on the filtering blebs in rabbits 6 postoperative weeks after GFS. (A, B) The appearance and UBM images of filtering blebs in the 4 groups after 6 postoperative weeks. **(C)** IOPs of the operated and non-operated eyes at various time-points. **(D, E)** The levels of fibrotic and antioxidants proteins analyzed by western blotting.



Supplementary Figure 4. (A) Intracellular ROS variation at indicated TGF- β 2 (4 ng/ml) treatment for 16h.



Supplementary Figure 5. (A) Representative images of HConFs colonies generated in survival assays, HConFs were treated in the absence or presence of 20 nM S58 for 12 h following TGF- β 2 (4 ng/ml) treatment for 3 days (kept with S58).