

Supplementary Information

In situ-crosslinked hydrogel-induced experimental glaucoma model with persistent ocular hypertension and neurodegeneration

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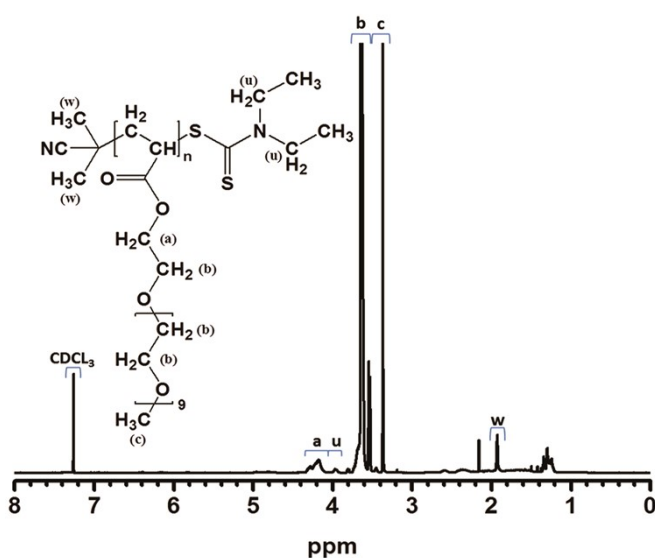


Fig. S1 The chemical structure and the ¹H-NMR result of HB-PEG.

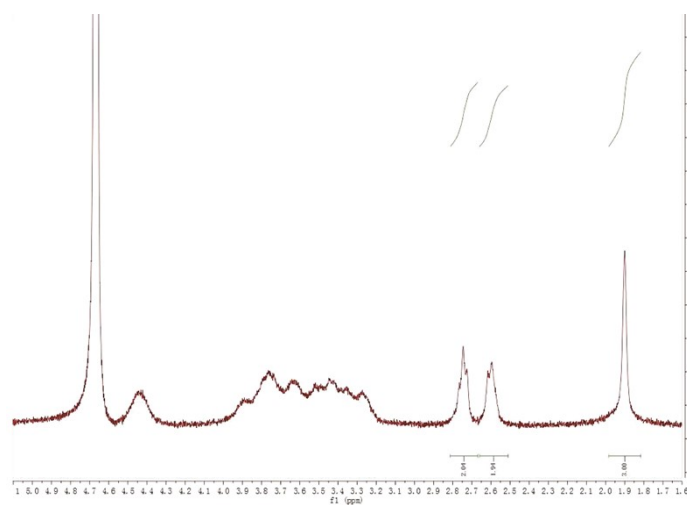


Fig. S2 The ¹H-NMR result of HA-SH.

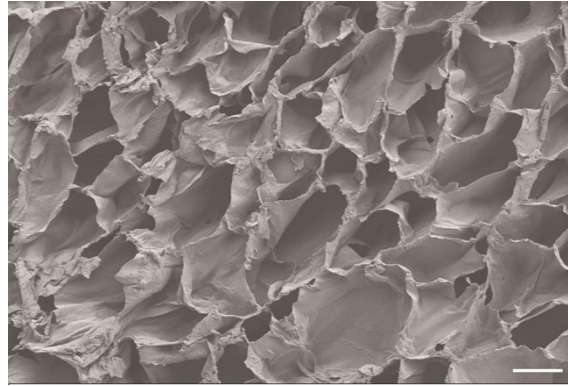


Fig. S3 SEM image of crosslinked HB-PEG/HA-SH hydrogel. Scale bar, 50 μ m.

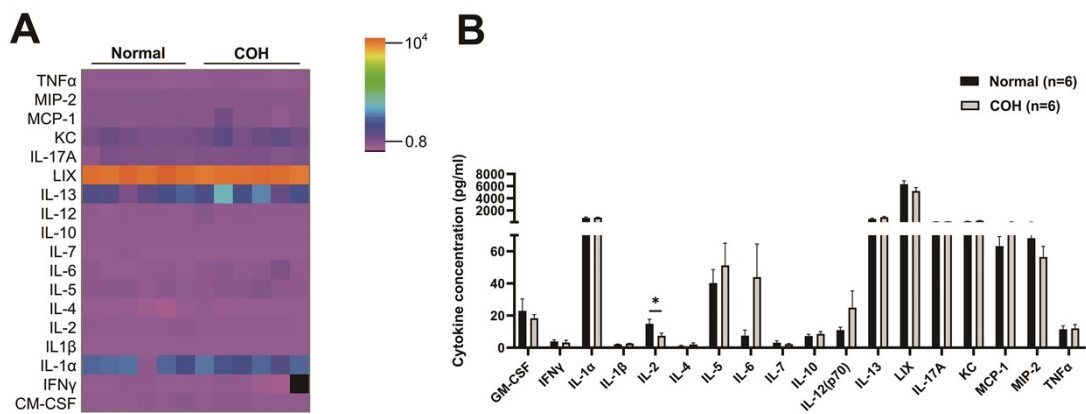


Fig. S4 Simultaneous measurement of 18 kinds of mouse inflammatory cytokines by multiplex ELISA assays. (A) Heatmap of each serum sample of the normal and COH (4 weeks after hydrogel injection) mice. (B) Serum cytokine concentrations of the normal and COH mice quantitatively analyzed by 5-PL (5-parameter logistic) algorithm. * $p < 0.05$, unpaired Student's t test. All bars show the mean \pm SEM.

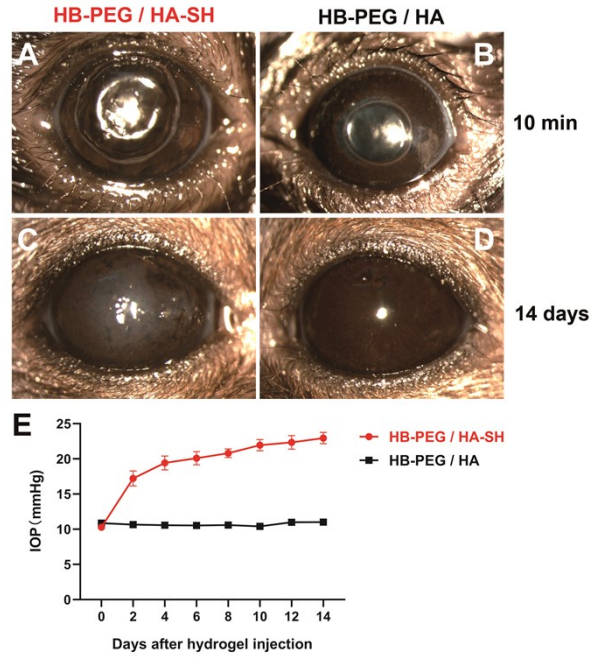


Fig. S5 Comparison of the hydrogel distribution and IOP changes between HB-PEG/HA-SH and HB-PEG/HA injection *in vivo*. (A-B) Anterior segment micrograph taken by slit-lamp microscope 10 minutes post-injection. (C-D) Anterior segment micrograph taken by slit-lamp microscope 14 days post-injection. (E) IOP changes in C57BL/6J mice after intracameral injection of HB-PEG/HA-SH hydrogel and HB-PEG/HA. Red line, HB-PEG/HA-SH-injected eyes; black line, HB-PEG/HA-injected eyes. n=10 and 10. *** $p < 0.001$. All bars show the mean \pm SEM.