

Supplementary Information

VEGF-B inhibits hyperglycemia- and Macugen-induced retinal apoptosis

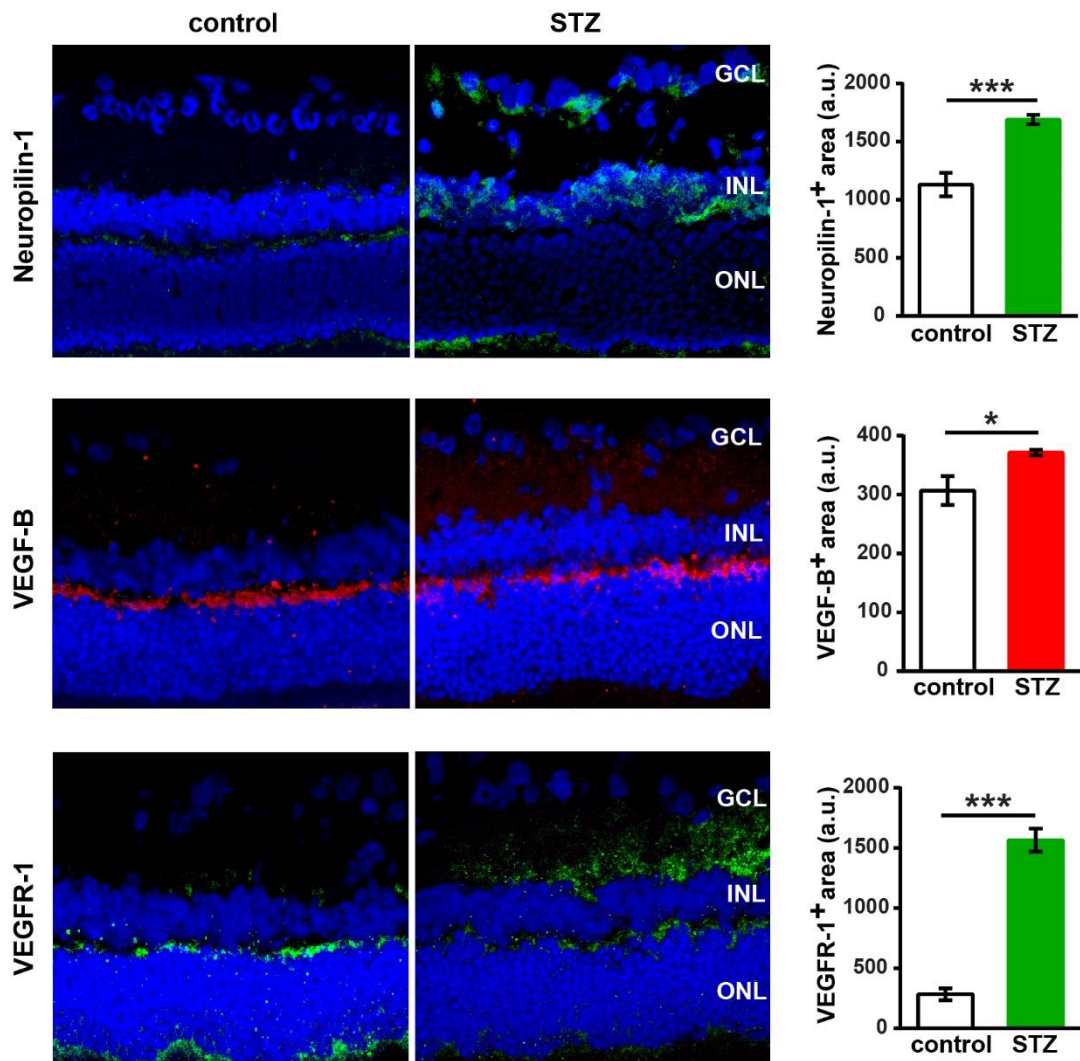
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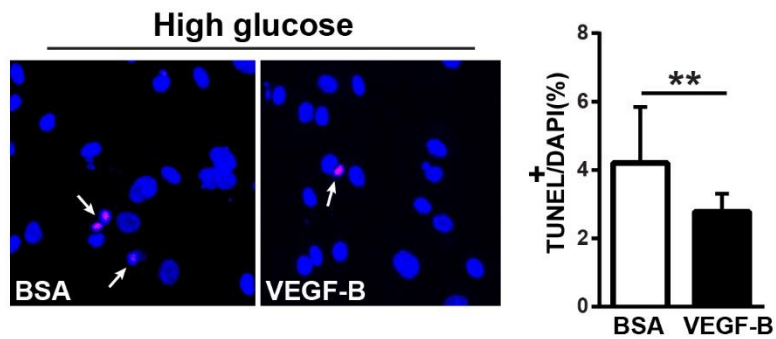
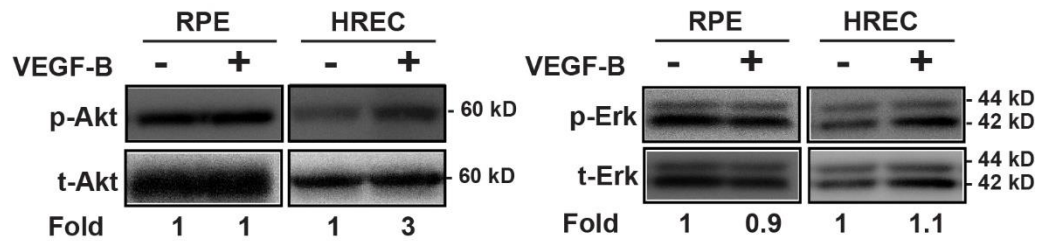
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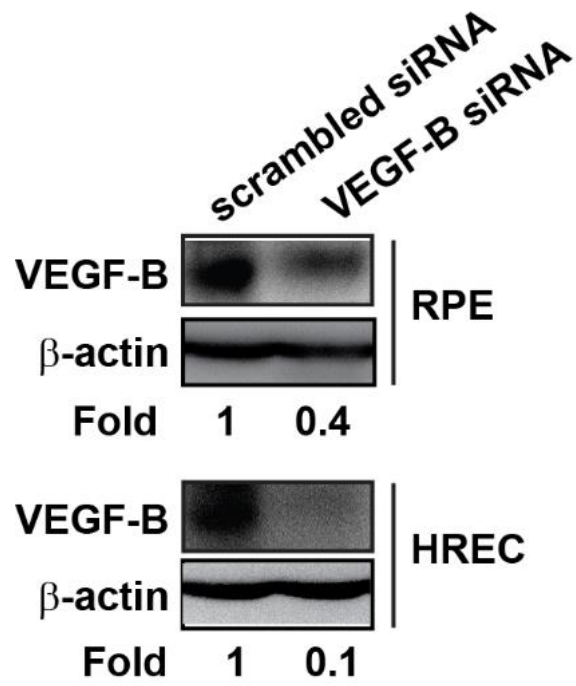
Supplementary Figure 1. NP1, VEGF-B, and VEGFR-1 are highly expressed in the retinae of STZ-induced diabetic rats.

Immunofluorescence staining of retinae from STZ-induced diabetic rats show that NP1, VEGF-B, and VEGFR-1 are highly expressed in the retinae of STZ-induced diabetic rats.

A**B**

Supplementary Figure 2. VEGF-B inhibited apoptosis in HRECs and promoted Akt activation.

(A) TUNEL staining (red with white arrows) detected apoptosis in high-glucose-treated HRECs. VEGF-B (100 ng/ml) treatment significantly decreased the number of TUNEL⁺ cells in HRECs as compared with those of BSA-treated ones. (B) Western blots show that VEGF-B induced phosphorylation of Akt but not Erk in HRECs.

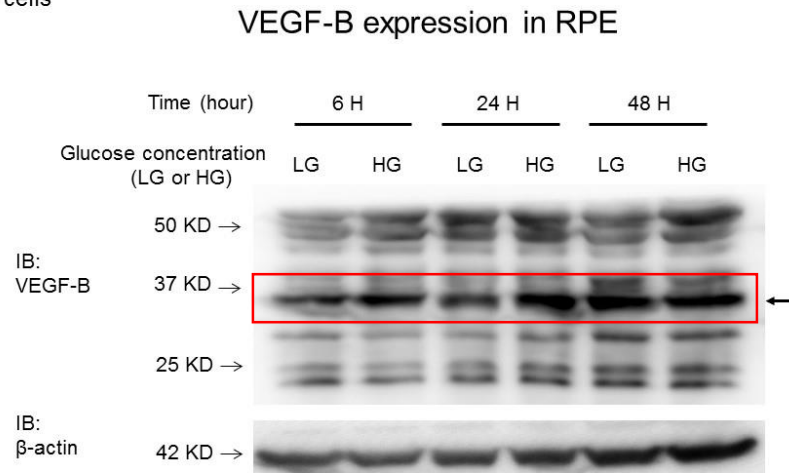


Supplementary Figure 3. VEGF-B knockdown by siRNA decreased VEGF-B expression.

RPE cells and HRECs were treated with VEGF-B siRNA and VEGF-B protein levels were decreased 48 hours after treatment as shown by Western blot.

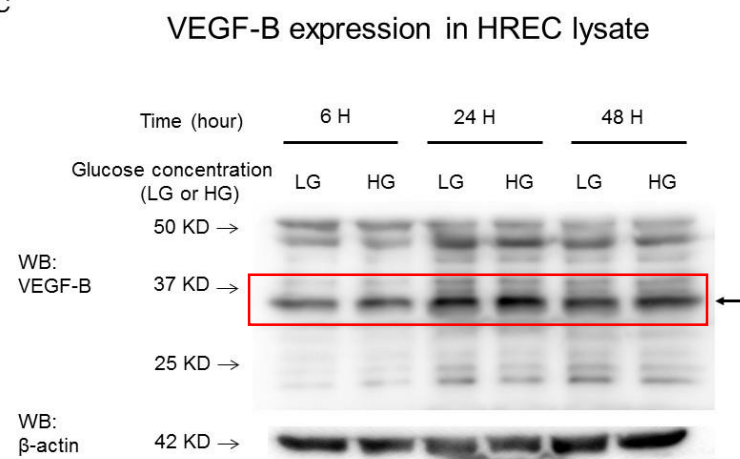
(A)

Fig. 5A - RPE cells



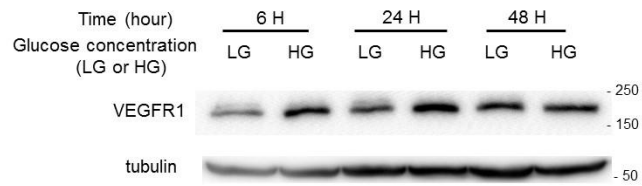
(B)

Fig. 5B - HREC



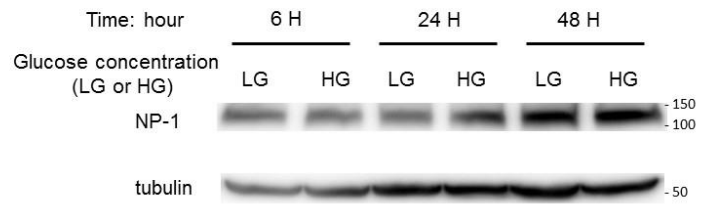
(C)

Fig. 6A - RPE cells



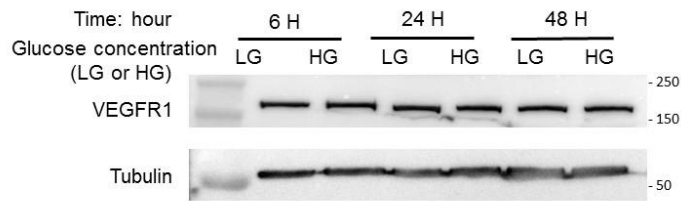
(D)

Fig. 6B - RPE cells



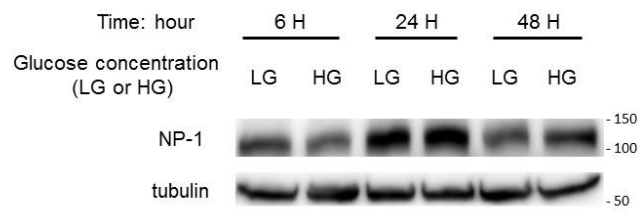
(E)

Fig. 6C – HREC



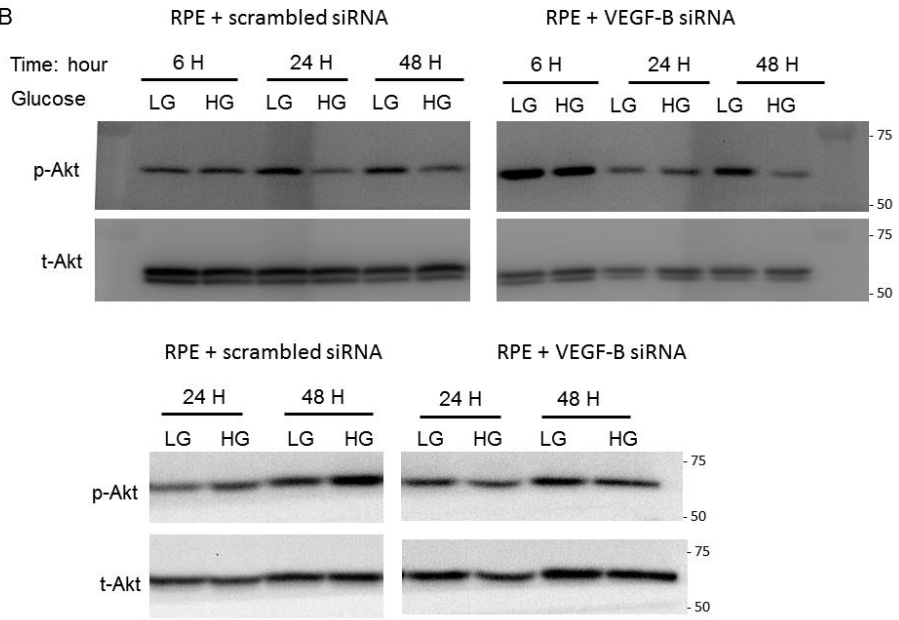
(F)

Fig. 6D – HREC



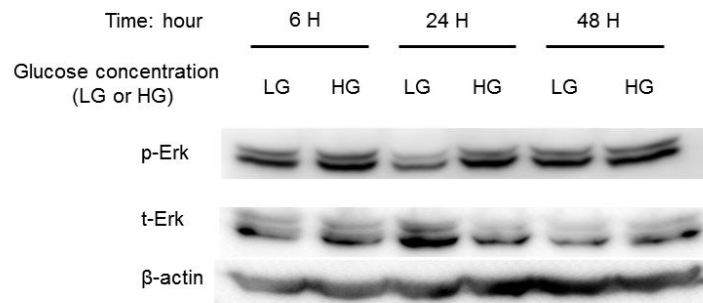
(G)

Fig. 7A & B



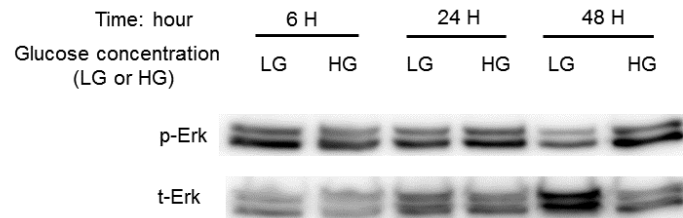
(H)

Fig. 8A – RPE cells



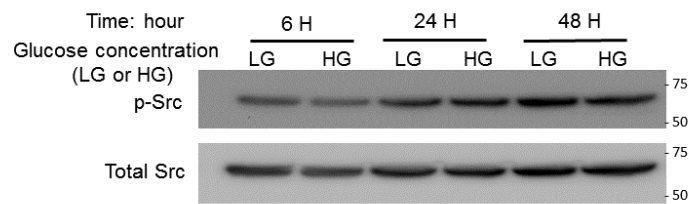
(I)

Fig. 8B - HREC



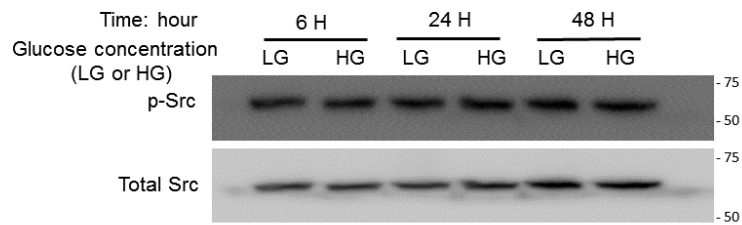
(J)

Fig. 8C - RPE cells



(K)

Fig. 8D – HREC



Supplementary Figure 4. Full length images of immunoblots.

The membranes were initially cut according to the molecular weight size of proteins. (A) Fig. 5A.

(B) Fig. 5B. (C) Fig. 6A. (D) Fig. 6B. (E) Fig. 6C. (F) Fig. 6D. (G) Fig. 7A and B. (H) Fig. 8A.

(I) Fig. 8B. (J) Fig. 8C. (K) Fig. 8D.