

 **α-PEDF Antibody**  
(RABBIT; POLYCLONAL; AFFINITY PUR.)

 **CATALOG NO.:** AB-PEDF1  
 **LOT. NO.:** 006-017  
 **QUANTITY:** 100 µg

 **SOURCE:**

α-PEDF Antibody is an affinity purified rabbit polyclonal antibody raised against purified human PEDF protein.

 **RECONSTITUTION:**

Reconstitute lyophilized α-PEDF Antibody in 100 µL diH<sub>2</sub>O.

 **CONCENTRATION:**

1.0 mg/mL after reconstitution.

 **PURITY & STERILITY:**

α-PEDF Antibody has been shown to be >90% pure by SDS-PAGE. α-PEDF Antibody is provided as a non-sterile sample. The product may be rendered sterile by 0.22 µm filtration after reconstitution.

**Note: This product is for research use only.**

**Not for use in clinical or diagnostic procedures.**

 **SPECIFICITY:**

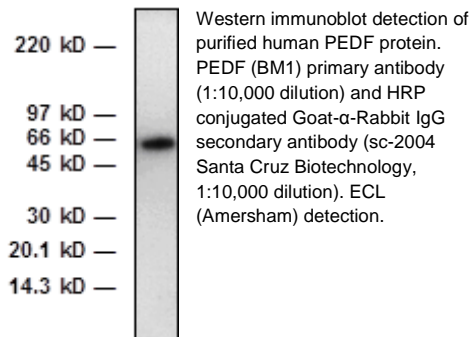
α-PEDF Antibody reacts specifically with PEDF by Western Blotting. Recommended dilution range for Western analysis: 1:1,000 – 1:10,000. Recommended starting dilution: 1:5,000.

 **STORAGE & HANDLING:**

α-PEDF Antibody is shipped at ambient temperature. This product is stable for at least 1 year following receipt. Store at 4°C. **Do Not Freeze!**

 **BACKGROUND:**

Pigment epithelium-derived factor (PEDF) is a protein that acts in neuronal differentiation and survival in cells derived from the retina and CNS. PEDF inhibits angiogenesis and its expression is down-regulated over the replicative lifespan of mammals. This interesting factor is secreted by retinal pigment epithelial cells into the interphotoreceptor matrix, where it acts on photoreceptor cells. PEDF receptors have been localized to photoreceptors, those cells that are protected from light-induced damage and apoptosis. PEDF promotes neuronal survival through activation of NFκB, which in turn induces expression of anti-apoptotic and/or neurotrophic factor genes. Its importance in the development, maintenance, and function of the retina and CNS is evident in animal models for inherited and light induced retinal



## ▶ REFERENCES:

degeneration, as well as for degeneration of spinal cord motor neurons, and animal models for diseases triggered by choroidal and retinal neovascularization. PEDF is a member of the serpin superfamily of protease inhibitors, but it has characteristics of a substrate rather than an inhibitor of serine proteases. An N-terminus peptide region provides the neurotrophic function to the PEDF protein while other structural characteristics are dispensable (e.g. signal peptide, oligosaccharides on the polypeptide backbone, serpin exposed loop).

- 1) Becerra SP. (1997) Structure-function studies on PEDF. A non-inhibitory serpin with neurotrophic activity. *Adv Exp Med Biol*, 425, 223-237.
- 2) Cao, W, Tombran-Tink, J, Elias, R, Sezate, S, Mrazed, D, McGinnis, JF. (2001) In vivo protection of photoreceptors from light damage by pigment epithelium-derived factor. *Invest Ophthalmol Vis Sci*, 42, 1646-1652.
- 3) Cayouette M, Smith SB, Becerra SP, Gravel C. (1999) Pigment epithelium-derived factor delays the death of photoreceptors in mouse models of inherited retinal degenerations. *Neurobiol Dis*, Dec;6(6), 523-532.
- 4) Dawson DW, Volpert OV, Gillis P, Crawford SE, Xu H, Benedict W, Bouck NP. (1999) Pigment epithelium-derived factor: a potent inhibitor of angiogenesis. *Science*, 285(5425), 245-248.
- 5) Houenou, LJ, D'Costa, AP, Li, L, Turgeon, VL, Enyadike, C, Alberdi, E, and Becerra, SP. (1999) Pigment epithelium-derived factor promotes the survival and differentiation of developing spinal motor neurons. *J. Comp Neurol*, 412, 506-514.
- 6) Jablonski, MM, Tombran-Tink, J, Mrazed, DA, and Iannaccone, A. (2000) Pigment epithelium-derived factor supports normal development of photoreceptor neurons and opsin expression after retinal pigment epithelium removal. *J. Neurosci*, 20, 7149-7157.
- 7) Mori, K, Gehlbach, P, Ando, A, McVey, D, Wei, L, and Campochiaro, PA. (2002) Regression of ocular neovascularization in response to increased expression of pigment epithelium-derived factor. *Invest Ophthalmol Vis Sci*, 43, 2428-2434.
- 8) Stellmach, V, Crawford, SE, Zhou, W, and Bouck, N. (2001) Prevention of ischemia-induced retinopathy by the natural ocular antiangiogenic agent pigment epithelium-derived factor. *Proc Natl Acad Sci USA*, 98, 2593-2597.

## ▶ ORDERING:

Cat. No.: AB-PEDF1 (100  $\mu$ g)  $\alpha$ -PEDF (Rabbit) Antibody  
 Cat. No.: AB-PEDF2 (1 mg)  $\alpha$ -PEDF (Rabbit) Antibody



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