

## Anti-Human $\alpha$ -PEDF Antibody (Rabbit; Polyclonal; Affinity Purified)

**Catalog Number:** AB-PEDF2  
**Lot Number:** 006-018  
**Quantity:** 1 mg

**Source:**  $\alpha$ -PEDF Antibody is an affinity purified rabbit polyclonal antibody raised against purified human PEDF protein.

**Reconstitution:** Reconstitute lyophilized  $\alpha$ -PEDF Antibody in 1 mL diH<sub>2</sub>O.

**Concentration:** 1.0 mg/mL after reconstitution.

**Purity & Sterility:**  $\alpha$ -PEDF Antibody has been shown to be >90% pure by SDS-PAGE.  $\alpha$ -PEDF Antibody is provided as a non-sterile sample. The product may be rendered sterile by 0.22  $\mu$ m filtration after reconstitution.

**Note: This product is for research use only. Not for use in clinical or diagnostic procedures.**

**Specificity:**  $\alpha$ -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:**  $\alpha$ -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 NF $\kappa$ B, 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 degeneration, as well as

220 kD —  
97 kD —  
66 kD —  
45 kD —  
30 kD —  
20.1 kD —  
14.3 kD —

Western immunoblot detection of purified human PEDF protein. PEDF (BM1) primary antibody (1:10,000 dilution) and HRP conjugated Goat- $\alpha$ -Rabbit IgG secondary antibody (sc-2004 Santa Cruz Biotechnology, 1:10,000 dilution). ECL (Amersham) detection.



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).

## References:

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- 7) Zhang W, Feng H, Gao Y, Sun L, Wang J, Li Y, Wang C, Zhao L, Hu X, Sun H, Wei Y, Sun D (2012) Role of Pigment Epithelium-Derived Factor in Arsenic-Induced Cell Apoptosis of Liver and Brain in a Rat Model. *Biol Trace Elem. Res*. PMID 23229538

