

## **PEDF**

(PIGMENT-EPITHELIUM DERIVED FACTOR)

 **CATALOG NO.:** PEDF-005

 **LOT. NO.:** 006-019

 **QUANTITY:** 5 µg

 **RECONSTITUTION:**

Reconstitute lyophilized PEDF in 10 µL deionized water.

 **CONCENTRATION:**

0.5 mg/mL protein (using BSA protein standard).  
200 mM Sodium chloride;  
20 mM Sodium phosphate, pH 6.4;  
1 mM DTT.

 **PURITY & STERILITY:**

PEDF has been shown to be >90% pure by SDS-PAGE. PEDF 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**

 **APPLICATIONS:**

- 1) PEDF has a potent neuronal differentiating activity on human retinoblastoma cell lines.
- 2) It is a survival factor for rat cerebellar granule cell neurons, which protects them from death by apoptosis and glutamate neurotoxicity.
- 3) It promotes the survival and differentiation of developing avian and murine spinal motor neurons.
- 4) It protects rat motor neurons from chronic glutamate-mediated degeneration.
- 5) It protects cultured rat retinal neurons against hydrogen peroxide-induced cell death.
- 6) It delays the death of photoreceptors in mouse models of inherited retinal degenerations.
- 7) It supports normal development of photoreceptor neurons and opsin expression after retinal pigment epithelium removal.

 **STORAGE & HANDLING:**

PEDF is shipped at ambient temperature. This product is stable for at least 6 months following receipt. It is recommended that lyophilized PEDF be stored at ≤4°C and reconstituted PEDF be aliquoted and stored at ≤-20°C. Avoid frequent freeze-thawing after reconstitution.

## ▶ REFERENCES:

- 1) Steele FR, Chader GJ, Johnson LV, Tombran-Tink J, "Pigment epithelium-derived factor: neurotrophic activity and identification as a member of the serine protease inhibitor gene family." *Proc Natl Acad Sci USA* 1993 Feb 15;90.
- 2) Taniwaki T, Becerra SP, Chader GJ, Schwartz JP, "Pigment epithelium-derived factor is a survival factor for cerebellar granule cells in culture." *J Neurochem* 1995 Jun;64(6):2509-17.
- 3) DeCoster MA, Schabelman E, Tombran-Tink J, Bazan NG, "Neuroprotection by pigment epithelial-derived factor against glutamate toxicity in developing primary hippocampal neurons." *J Neurosci Res* 1999 Jun 15;56(6):604-10.
- 4) Houenou LJ, D'Costa AP, Li L, Turgeon VL, Enyadike C, Alberdi E, Becerra SP, "Pigment epithelium-derived factor promotes the survival and differentiation of developing spinal motor neurons." *J Comp Neurol* 1999 Sep 27;412(3):506-14.
- 5) Bilak MM, Corse AM, Bilak SR, Lehar M, Tombran-Tink J, Kuncel RW, "Pigment epithelium-derived factor (PEDF) protects motor neurons from chronic glutamate-mediated neurodegeneration." *J Neuropathol Exp Neurol* 1999 Jul;58(7):719-28.
- 6) Cao W, Tombran-Tink J, Chen W, Mrazek D, Elias R, McGinnis JF, "Pigment epithelium-derived factor protects cultured retinal neurons against hydrogen peroxide-induced cell death." *J Neurosci Res* 1999 Sep 15;57(6):789-800.
- 7) Cayouette M, Smith SB, Becerra SP, Gravel C, "Pigment epithelium-derived factor delays the death of photoreceptors in mouse models of inherited retinal degenerations." *Neurobiol Dis* 1999 Dec;6(6):523-32.
- 8) Jablonski MM, Tombran-Tink J, Mrazek DA, Iannaccone A, "Pigment epithelium-derived factor supports normal development of photoreceptor neurons and opsin expression after retinal pigment epithelium removal." *J Neurosci* 2000 Oct 1;20(19):7149-57.

## ▶ ORDERING:

Cat. No.:	PEDF-5	(5 µg)
Cat. No.:	PEDF-50	(50 µg)
Cat. No.:	PEDF-500	(500 µg)



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