

PEDF (H-9): sc-390066

BACKGROUND

Pigment epithelium-derived growth factor (PEDF), also known as EPC-1 (early population doubling level cDNA-1), is a glycoprotein found naturally in the normal eye. PEDF has reported neuroprotective and differentiation properties and is secreted in abundance by retinal pigment epithelium cells. It belongs to the serine protease inhibitor (serpin) superfamily and has been reported to inhibit angiogenesis and proliferation of several cell types. The "pooling" of PEDF within the interphotoreceptor matrix places this molecule in a prime physical location to affect the underlying neural retina. Additionally, PEDF induces neuronal differentiation and promotes survival of neurons of the central nervous system from degeneration caused by serum withdrawal or glutamate cytotoxicity.

REFERENCES

1. Cayouette, M., Smith, S.B., Becerra, S.P. and Gravel, C. 1999. Pigment epithelium-derived factor delays the death of photoreceptors in mouse models of inherited retinal degenerations. *Neurobiol. Dis.* 6: 523-532.
2. Cao, W., Tombran-Tink, J., Chen, W., Mrazek, D., Elias, R. and McGinnis, J.F. 1999. Pigment epithelium-derived factor protects cultured retinal neurons against hydrogen peroxide-induced cell death. *J. Neurosci. Res.* 57: 789-800.
3. Coljee, V.W., Rotenberg, M.O., Tresini, M., Francis, M.K., Cristofalo, V.J. and Sell, C. 2000. Regulation of EPC-1/PEDF in normal human fibroblasts is post-transcriptional. *J. Cell. Biochem.* 79: 442-452.
4. Jablonski, M.M., Tombran-Tink, J., Mrazek, D.A. 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.
5. Stellmach, V.V., Crawford, S.E., 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.

CHROMOSOMAL LOCATION

Genetic locus: SERPINF1 (human) mapping to 17p13.3.

SOURCE

PEDF (H-9) is a mouse monoclonal antibody raised against amino acids 281-405 of PEDF of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PEDF (H-9) is recommended for detection of PEDF of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PEDF siRNA (h): sc-40947, PEDF shRNA Plasmid (h): sc-40947-SH and PEDF shRNA (h) Lentiviral Particles: sc-40947-V.

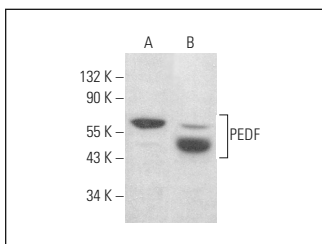
Molecular Weight of PEDF: 50 kDa.

Positive Controls: PEDF (h2): 293T Lysate: sc-158841, Y79 cell lysate: sc-2240 or IMR-32 cell lysate: sc-2409.

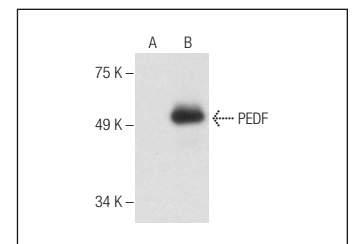
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PEDF (H-9): sc-390066. Western blot analysis of PEDF expression in Y79 (A) and IMR-32 (B) whole cell lysates.



PEDF (H-9): sc-390066. Western blot analysis of PEDF expression in non-transfected: sc-117752 (A) and human PEDF transfected: sc-158841 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.