

PEDF (L-15): sc-31925

BACKGROUND

Pigment epithelium-derived growth factor (PEDF), also known as early population doubling level cDNA-1 (EPC-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. PEDF 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

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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 posttranscriptional. *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; Serpinf1 (mouse) mapping to 11 B5.

SOURCE

PEDF (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PEDF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31925 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PEDF (L-15) is recommended for detection of precursor and mature PEDF of Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PEDF (L-15) is also recommended for detection of precursor and mature PEDF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PEDF siRNA (h): sc-40947, PEDF siRNA (m): sc-40948, PEDF shRNA Plasmid (h): sc-40947-SH, PEDF shRNA Plasmid (m): sc-40948-SH, PEDF shRNA (h) Lentiviral Particles: sc-40947-V and PEDF shRNA (m) Lentiviral Particles: sc-40948-V.

Molecular Weight of PEDF: 50 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or A549 cell lysate: sc-2413.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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