

PEDF (D-10): sc-390172

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.

CHROMOSOMAL LOCATION

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

SOURCE

PEDF (D-10) is a mouse monoclonal antibody raised against amino acids 281-405 of PEDF of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PEDF (D-10) is available conjugated to agarose (sc-390172 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390172 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390172 PE), fluorescein (sc-390172 FITC), Alexa Fluor® 488 (sc-390172 AF488), Alexa Fluor® 546 (sc-390172 AF546), Alexa Fluor® 594 (sc-390172 AF594) or Alexa Fluor® 647 (sc-390172 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390172 AF680) or Alexa Fluor® 790 (sc-390172 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PEDF (D-10) 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 A549 cell lysate: sc-2413.

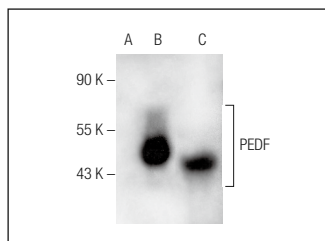
RESEARCH USE

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

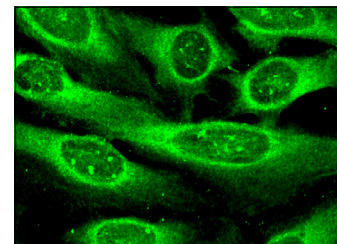
STORAGE

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

DATA



PEDF (D-10): sc-390172. Western blot analysis of PEDF expression in non-transfected 293T: sc-117755 (A), human PEDF transfected 293T: sc-158841 (B) and Y79 (C) whole cell lysates.



PEDF (D-10): sc-390172. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

SELECT PRODUCT CITATIONS

- Jiang, N., et al. 2018. The role of pirfenidone in alkali burn rat cornea. *Int. Immunopharmacol.* 64: 78-85.
- Duan, C.Y., et al. 2019. Limbal niche cells: a novel feeder cell for autologous cultivated oral mucosal epithelial transplantation. *Regen. Med.* 14: 49-62.
- Ribaux, P., et al. 2019. Malignant ascites: a source of therapeutic protein against ovarian cancer? *Oncotarget* 10: 5894-5905.
- Fu, H., et al. 2020. Interleukin 35 delays hindlimb ischemia-induced angiogenesis through regulating Ros-extracellular matrix but spares later regenerative angiogenesis. *Front. Immunol.* 11: 595813.
- Li, L., et al. 2021. PEDF relieves kidney injury in type 2 diabetic nephropathy mice by reducing macrophage infiltration. *Endokrynol. Pol.* 72: 643-651.
- Wang, Y., et al. 2022. Pigment epithelium-derived factor maintains tight junction stability after myocardial infarction in rats through inhibition of the Wnt/β-catenin signaling pathway. *Exp. Cell Res.* 417: 113213.
- Bai, M., et al. 2022. Pigment epithelium-derived factor may induce antidepressant phenotypes in mice by the prefrontal cortex. *Neurosci. Lett.* 771: 136423.
- Liu, J., et al. 2023. Resveratrol alleviates preeclampsia-like symptoms in rats through a mechanism involving the miR-363-3p/PEDF/VEGF axis. *Microvasc. Res.* 146: 104451.
- Calis, P., et al. 2024. Do small for gestational age fetuses have placental pathologies? *Arch. Gynecol. Obstet.* 309: 1305-1313.

PROTOCOLS

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