SANTA CRUZ BIOTECHNOLOGY, INC.

PD-ECGF (0.N.568): sc-71867

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Platelet-derived endothelial cell growth factor (PD-ECGF), which is alternatively designated thymidine phosphorylase or gliostatin, is an angiogenic inducer that potently stimulates the growth of endothelial cells and induces chemotaxis. Biologically active PD-ECGF is a functional dimer that consists of two single polypeptide chains that are expressed in platelets, placenta, foreskin fibroblasts and various squamous cell carcinomas, and they are slowly secreted from the cells. In addition, PD-ECGF is overexpressed in tumor and lesional psoriatic skin and lesional epidermis, indicating that it may play a role in the pathophysiology of psoriasis. Serine residues of PD-ECGF are frequently associated with nucleotide triphosphates, including ATP. In an ATP dependent manner, PD-ECGF is also able to catalyze the reversible phosphorolysis of thymidine to thymine, as it contains thymidine phosphorylase activities.

REFERENCES

1. Ishikawa, F., et al. 1989. Identification of angiogenic activity and the cloning and expression of platelet-derived endothelial cell growth factor. Nature 338: 557-562.
2. Usuki, K., et al. 1989. Production of platelet-derived endothelial cell growth factor by normal and transformed human cells in culture. Proc. Natl. Acad. Sci. USA 86: 7427-7431.

CHROMOSOMAL LOCATION

Genetic locus: TYMP (human) mapping to 22q13.33; Tymp (mouse) mapping to 15 E3.

SOURCE

PD-ECGF (0.N.568) is a mouse monoclonal antibody raised against full length recombinant PD-ECGF of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PD-ECGF (0.N.568) is recommended for detection of PD-ECGF of mouse, rat and 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PD-ECGF siRNA (h): sc-39697, PD-ECGF siRNA (m): sc-72027, PD-ECGF shRNA Plasmid (h): sc-39697-SH, PD-ECGF shRNA Plasmid (m): sc-72027-SH, PD-ECGF shRNA (h) Lentiviral Particles: sc-39697-V and PD-ECGF shRNA (m) Lentiviral Particles: sc-72027-V.

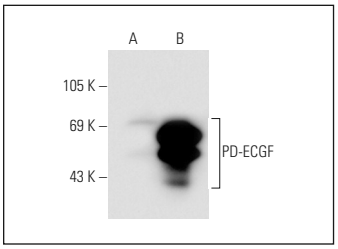
Molecular Weight of PD-ECGF: 45 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, PD-ECGF (h): 293T Lysate: sc-159392 or MDA-MB-231 cell lysate: sc-2232.

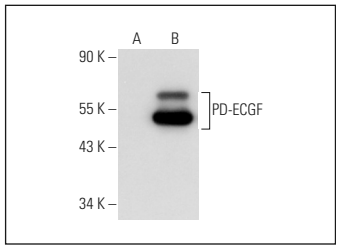
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PD-ECGF (0.N.568): sc-71867. Western blot analysis of PD-ECGF expression in non-transfected: sc-117752 (**A**) and human PD-ECGF transfected: sc-159392 (**B**) 293T whole cell lysates.



PD-ECGF (0.N.568): sc-71867. Western blot analysis of PD-ECGF expression in non-transfected: sc-117752 (**A**) and human PD-ECGF transfected: sc-115640 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Terranova-Barberio, M., et al. 2016. Valproic acid potentiates the anti-cancer activity of capecitabine *in vitro* and *in vivo* in breast cancer models via induction of thymidine phosphorylase expression. Oncotarget 7: 7715-7731.
2. Terranova-Barberio, M., et al. 2017. Synergistic antitumor interaction between valproic acid, capecitabine and radiotherapy in colorectal cancer: critical role of p53. J. Exp. Clin. Cancer Res. 36: 177.

STORAGE

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

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.