

PD-ECGF (h2): 293T Lysate: sc-115640

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 phosphorylation 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.
3. Heldin, C.H., et al. 1991. Platelet-derived endothelial cell growth factor. *J. Cell. Biochem.* 47: 208-210.
4. Stenman, G., et al. 1991. Mapping of the human platelet-derived endothelial cell growth factor (PD-ECGF) gene to chromosome 22q13. *Cytogenet. Cell Genet.* 58: 2051.
5. Asai, K., et al. 1992. Neurotrophic action of gliostatin on cortical neurons. Identity of gliostatin and platelet-derived endothelial cell growth factor. *J. Biol. Chem.* 267: 20311-20316.
6. Waltenberger, J., et al. 1992. Platelet-derived endothelial cell growth factor. Pharmacokinetics, organ distribution and degradation after intravenous administration in rats. *FEBS Lett.* 313: 129-132.
7. Usuki, K., et al. 1992. Platelet-derived endothelial cell growth factor has thymidine phosphorylase activity. *Biochem. Biophys. Res. Commun.* 184: 1311-1316.
8. Griffiths, L., et al. 1997. Platelet-derived endothelial cell growth factor thymidinephosphorylase in tumour growth and response to therapy. *Br. J. Cancer* 76: 689-693.

CHROMOSOMAL LOCATION

Genetic locus: TYMP (human) mapping to 22q13.33.

PRODUCT

PD-ECGF (h2): 293T Lysate represents a lysate of human PD-ECGF transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

PD-ECGF (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive PD-ECGF antibodies. Recommended use: 10-20 µl per lane.

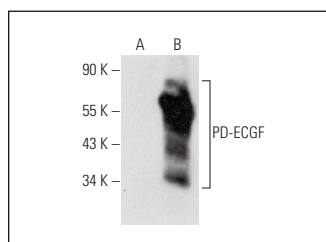
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PD-ECGF (C-6): sc-515552 is recommended as a positive control antibody for Western Blot analysis of enhanced human PD-ECGF expression in PD-ECGF transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

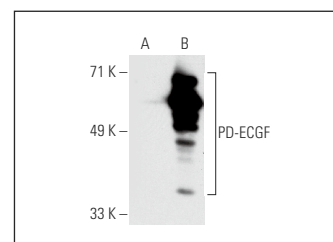
RECOMMENDED SUPPORT REAGENTS

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.

DATA



PD-ECGF (C-6): sc-515552. 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.



PD-ECGF (SPM322): sc-56584. 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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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