SANTA CRUZ BIOTECHNOLOGY, INC.

PD-ECGF (PGF-44C): sc-47702

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.

CHROMOSOMAL LOCATION

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

SOURCE

PD-ECGF (PGF-44C) 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.

PD-ECGF (PGF-44C) is available conjugated to agarose (sc-47702 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47702 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-47702 PE), fluorescein (sc-47702 FITC), Alexa Fluor® 488 (sc-47702 AF488), Alexa Fluor® 546 (sc-47702 AF546), Alexa Fluor® 594 (sc-47702 AF594) or Alexa Fluor® 647 (sc-47702 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-47702 AF680) or Alexa Fluor® 790 (sc-47702 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PD-ECGF (PGF-44C) 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), immunohistochemistry (including paraffin-embedded sections) (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 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.

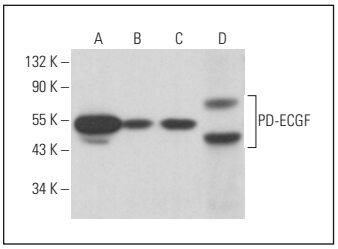
Molecular Weight of PD-ECGF: 45 kDa.

Positive Controls: PD-ECGF (h): 293T Lysate: sc-159392, SK-BR-3 cell lysate: sc-2218 or HeLa whole cell lysate: sc-2200.

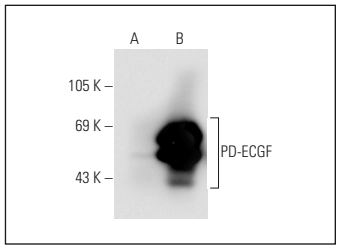
STORAGE

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

DATA



PD-ECGF (PGF-44C): sc-47702. Western blot analysis of PD-ECGF expression in SK-BR-3 (**A**), HeLa (**B**) and A-431 (**C**) whole cell lysates and rat liver tissue extract (**D**).



PD-ECGF (PGF-44C): sc-47702. 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.

SELECT PRODUCT CITATIONS

1. Tsai, M.S., et al. 2011. Synergistic effect of curcumin and cisplatin via down-regulation of thymidine phosphorylase and excision repair cross-complementary 1 (ERCC1). Mol. Pharmacol. 80: 136-146.
2. Perdomo, A.B., et al. 2012. Liver protein profiling in chronic hepatitis C: identification of potential predictive markers for interferon therapy outcome. J. Proteome Res. 11: 717-727.
3. Ko, J.C., et al. 2013. Metformin induces cytotoxicity by down-regulating thymidine phosphorylase and excision repair cross-complementation 1 expression in non-small cell lung cancer cells. Basic Clin. Pharmacol. Toxicol. 113: 56-65.
4. Kim, K.W., et al. 2013. Prognostic significance of thymidylate synthase, thymidine phosphorylase and dihydropyrimidine dehydrogenase expression in biliary tract cancer patients receiving adjuvant 5-fluorouracil-based chemotherapy. Mol. Clin. Oncol. 1: 987-994.
5. Laudanski, P., et al. 2014. Profiling of selected angiogenesis-related genes in proliferative eutopic endometrium of women with endometriosis. Eur. J. Obstet. Gynecol. Reprod. Biol. 172: 85-92.
6. Ko, J.C., et al. 2019. Inhibition of thymidine phosphorylase expression by Hsp90 inhibitor potentiates the cytotoxic effect of salinomycin in human non-small-cell lung cancer cells. Toxicology 417: 54-63.
7. Majerník, M., et al. 2019. Novel insights into the effect of hyperforin and photodynamic therapy with hypericin on chosen angiogenic factors in colorectal micro-tumors created on chorioallantoic membrane. Int. J. Mol. Sci. 20: 3004.
8. Regmi, P., et al. 2020. SAHA overcomes 5-FU resistance in IFIT2-depleted oral squamous cell carcinoma cells. Cancers 12: 3527.

RESEARCH USE

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