SANTA CRUZ BIOTECHNOLOGY, INC.

PlGF (MM0010-2D93): sc-101572

BACKGROUND

The onset of angiogenesis is believed to be an early event in tumorigenesis and may facilitate tumor progression and metastasis. Several growth factors with angiogenic activity have been described. These include fibroblast growth factor (FGF), platelet derived growth factor (PDGF), vascular endothelial growth factor (VEGF) and placenta growth factor (PlGF). Like VEGF, several PlGF variants have been shown to arise from alternative mRNA splicings. Evidence has suggested VEGF to be an obligatory component in PlGF signaling. While VEGF homodimers and VEGF/PlGF heterodimers function as potent mediators of mitogenic and chemotactic responses in endothelial cells, PlGF homodimers are effectual only at extremely high concentrations. Indeed, many of the physiological effects attributed to VEGF may actually be a result of VEGF/PlGF. VEGF and PlGF share a common receptor, Flt-1, and may also activate Flk-1/KDR.

REFERENCES

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4. Ferrara, N., Houck, K.A., Jakeman, L.B., Winer, J. and Leung, D.W. 1991. The vascular endothelial growth factor family of polypeptides. J. Cell. Biochem. 47: 211-218.
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7. Clauss, M., Weich, H., Breier, G., Knies, U., Rockl, W., Waltenberger, J. and Risau, W. 1996. The vascular endothelial growth factor receptor Flt-1 mediates biological activities. Implications for functional role of placenta growth factor in monocyte activation and chemotaxis. J. Biol. Chem. 271: 17629-17634.

STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: PGF (human) mapping to 14q24.3.

SOURCE

PlGF (MM0010-2D93) is a mouse monoclonal antibody raised against recombinant PlGF of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PlGF (MM0010-2D93) is recommended for detection of PlGF of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with VEGF or PDGF.

Suitable for use as control antibody for PlGF siRNA (h): sc-44027, PlGF shRNA Plasmid (h): sc-44027-SH and PlGF shRNA (h) Lentiviral Particles: sc-44027-V.

Molecualr Weight of PlGF: 18 kDa.

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) 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.

RESEARCH USE

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