SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

PTP (HCPTP). Sheep Polyclonal Antibody

Background

Low molecular weight protein tyrosine phosphtases, including the human red cell phosphatase, HCPTP, are widely expressed cytosolic proteins of approximately 18kDa that exist in distinct isoforms and are highly selective for phosphotyrosine over phosphoserine or phosphotyrosine. The HCPTP-A and HCPTP-B proteins expressed in human red cells and placenta are fast and slow forms of red cell acid phosphatase[5]. Like other tyrosine phosphatases, HCPTP is sensitive to inhibition by vanadate, and has a catalytic mechanism that involves formation of a cystinyl-phosphate intermediate[6]. The crystal structure of the bovine heart derived enzyme BHPTP shows a four-stranded central parallel b sheet with flanking a helices and an active site cysteine residue in the typical tyrosine phosphatase sequence context, CXXXXXR.

Biological actions and cellular substrates have not been fully elucidated. It is expressed in a wide range of cell types, and structural homologues are expressed in yeast. A catalytically inactive LMW-PTP functions to promote cell division and binds to tyrosine-phosphorylated PDGF receptors[1]. The HCPTPA isoform interacts with receptor tyrosine kinases, EphB1 and VEGFR2 (flk-1)[2,4]. Its overexpression inhibits VEGF-induced endothelial proliferation and migration, and its recruitment to EphB1 complexes is crucial to downstream signaling between EphB1 and integrins that mediate cell-matrix attachment[3].

Ordering Information

Catalog Number
P240P

Size
100 µg

Form
Unconjugated

Host/Clone
Sheep

Formulation
Provided as solution in phosphate buffered saline with 0.08% sodium azide

Concentration
See vial for concentration

Isotype
IgG

Applications
Western Blot, Immunoprecipitation

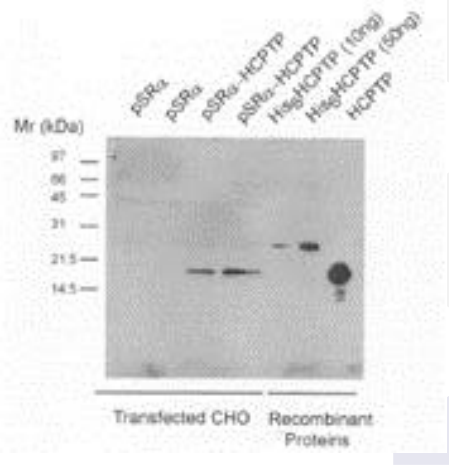
Species Reactivity
Human, Mouse, Rat, Bovine

Accession Number
P24666, Human

Immunogen

The human protein, HCPTPA (GB Accession #M83653) was subcloned into pRSET to express a His6 N terminal fusion protein. This protein was expressed in E. coli and purified to homogeneity on Ni affinity matrix.

CHO cells were transfected with either Vector (pSRa) or expression vector driving expression of HCPTPA (pSRa-LMWPTP), and harvested in Triton X-100 lysis buffer at 72 h after transfection. 2mg of lysate protein was incubated for 1 h with 10ml of sheep-anti-LMWPTP containing anti-serum, and immuno-precipitated proteins recovered by Protein A/G were separated on PAGE (12%), and HCPTPA detected using a mouse anti-sheep monoclonal antibody (Cat # X1206M).



Exalpha Biologicals, Inc. 2 Shaker Road, Bldg. B101 Shirley, MA 01464
Tel: 800.395.1137 Fax: 866.924.5100 www.exalpha.com info@exalpha.com

COMMENTS

Antbibody can be used for Western blotting and immunoprecipitation (1-10μg/ml. Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Ammonium Sulfate Precipitation

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20ºC. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Chiarugi, P., Cirri, P., Raugei, G., Camici, G., Dolfi, F., Berti, A., and Ramponi, G. (1995). PDGF receptor as a specific in vivo target for low M(r) protein tyrosine phosphatase. FEBS Letters 372, 49-53.

2. Huang, L., Sankar, S., Lin, C., Kontos, C.D., Schroff, A.D., Cha, E.H., Feng, S.M., Li, S.F., Yu, Z., Van Etten, R.L., Blanar, M.A., and Peters, K.G. (1999). HCPTPA, a Protein Tyrosine Phosphatase That Regulates Vascular Endothelial Growth Factor Receptor-mediated Signal Transduction and Biological Activity. J.Biol.Chem. 274, 38183 -38188.

3. Huynh-Do, U., Stein, E., Lane, A.A., Liu, H., Cerretti, D.P., and Daniel, T.O. (1999). Surface densities of ephrin-B1 determine EphB1-coupled activation of cell attachment through alphavbeta3 and alpha5beta1 integrins. EMBO J. 18, 2165-2173.

4. Stein, E., Lane, A.A., Cerretti, D.P., Schoecklmann, H.O., Schroff, A.D., Van Etten, R.L., and Daniel, T.O. (1998). Eph receptors discriminate specific ligand oligomers to determine alternative signaling complexes, attachment, and assembly responses. Genes Dev. 12, 667-678.

5. Wo, Y.-Y., McCormack, A.L., Shabanowitz, J., Hunt, D.F., Davis, J.P., Mitchell, G.L., and Van Etten, R.L. (1992). Sequencing, cloning, and expression of human red cell-type acid phosphatase, a cytoplasmic phosphotyrosyl protein phosphatase. J Biol Chem 267, 10856-10865.

6. Zhang, M., Stauffacher, C.V., and VanEtten, R.L. (1995). The three dimensional structure, chemical mechanism and function of the low molecular weight protein tyrosine phosphatases. Adv.Prot.Phosphatases 9, 1-23.

Exalpha Biologicals, Inc. 2 Shaker Road, Bldg. B101 Shirley, MA 01464
Tel: 800.395.1137 Fax: 866.924.5100 www.exalpha.com info@exalpha.com