

PTP-MEG2 (h): 293T Lysate: sc-176465

BACKGROUND

Protein tyrosine phosphatases (PTPs) and protein tyrosine kinases (PTKs) play a ubiquitous role in the regulation of tyrosine phosphorylation-mediated signaling pathways. Tyrosine-phosphorylated proteins can be dephosphorylated through the action of PTPs, which therefore are likely to play a regulatory role in the control of cellular growth and differentiation. PTP-MEG2 (also known as PTPN9) is a cytoplasmic nonreceptor protein involved in the transfer of hydrophobic ligands and possibly in functions of the Golgi apparatus. It is involved in the development of erythroid cells and has an N-terminal Sec14p homology domain. The human gene for PTP-PEST, another cytoplasmic non-receptor protein, maps to chromosome 7q11.23 and encodes a 780 amino acid cytosolic nonreceptor protein. PTP-PEST is expressed abundantly in a wide variety of hemopoietic cell types, including B cells and T cells.

REFERENCES

- Gu, M., et al. 1992. Cloning and expression of a cytosolic megakaryocyte protein tyrosine phosphatase with sequence homology to retinaldehyde-binding protein and yeast Sec14p. *Proc. Natl. Acad. Sci. USA* 89: 2980-2984.
- Qi, Y., et al. 2002. Purification and characterization of protein tyrosine phosphatase PTP-MEG2. *J. Cell. Biochem.* 86: 79-89.
- Wang, X., et al. 2002. Enlargement of secretory vesicles by protein tyrosine phosphatase PTP-MEG2 in rat basophilic leukemia mast cells and Jurkat T cells. *J. Immunol.* 168: 4612-4619.
- Huynh, H., et al. 2003. Homotypic secretory vesicle fusion induced by the protein tyrosine phosphatase MEG2 depends on polyphosphoinositides in T cells. *J. Immunol.* 171: 6661-6671.
- Xu, M.J., et al. 2003. PTP-MEG2 is activated in polycythemia vera erythroid progenitor cells and is required for growth and expansion of erythroid cells. *Blood* 102: 4354-4360.

CHROMOSOMAL LOCATION

Genetic locus: PTPN9 (human) mapping to 15q24.2.

PRODUCT

PTP-MEG2 (h): 293T Lysate represents a lysate of human PTP-MEG2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PTP-MEG2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PTP-MEG2 antibodies. Recommended use: 10-20 µl per lane.

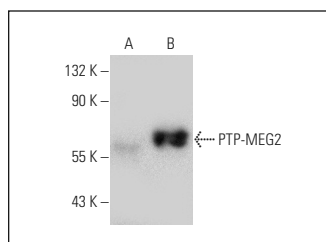
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PTP-MEG2 (D-5): sc-271052 is recommended as a positive control antibody for Western Blot analysis of enhanced human PTP-MEG2 expression in PTP-MEG2 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



PTP-MEG2 (D-5): sc-271052. Western blot analysis of PTP-MEG2 expression in non-transfected: sc-117752 (A) and human PTP-MEG2 transfected: sc-176465 (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.

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.