

Recombinant Human PTPN4, GST-tagged

Cat. No. PTPN4-603H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human catalytic domain (amino acids 637-926) of MEG-1 with N-terminal GST tag was expressed in an E. coli expression system. MW = 60 kDa.
Species	Human
Source	E.coli
ProteinLength	637-926 a.a.
Description	Tyrosine-protein phosphatase non-receptor type 4 is an enzyme that in humans is encoded by the PTPN4 gene. The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This protein contains a C-terminal PTP domain and an N-terminal domain homologous to the band 4.1 superfamily of cytoskeletal-associated proteins. This PTP has been shown to interact with glutamate receptor delta 2 and epsilon subunits, and is thought to play a role in signalling downstream of the glutamate receptors through tyrosine dephosphorylation.
Specific Activity	15,000 U/mg.1 unit of MEG-1 activity is equal to 1 nmol phosphate hydrolyzed from p-nitrophenyl phosphate substrate per minute at pH 7.4 and 30 °C.
Assay Condition	50 mM HEPES, pH 7.4, 2 mM EDTA, 3 mM DTT, 100 mM NaCl, 50 mM pNPP substrate, and 5 µg/ml recombinant MEG-1.

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Purity	> 95% by SDS-PAGE.
Formulation	Recombinant protein is in storage buffer (25 mM Tris-HCl, pH 8.0, 75 mM NaCl, 0.05% Tween-20, 2 mM EDTA, 1 mM DTT, and 50% glycerol).
Application	MEG-1 is useful for the study of enzyme kinetics, regulation, target substrate dephosphorylation, and inhibitor screening.
Storage And Stability	Store product frozen at or below -70 °C. Enzyme will be stable for at least 6 months at -70 °C as undiluted stock. Freeze in working aliquots to avoid repeated thawing and freezing.

GENE INFORMATION

Gene Name	PTPN4 protein tyrosine phosphatase, non-receptor type 4 (megakaryocyte) [Homo sapiens]
Synonyms	protein tyrosine phosphatase, non-receptor type 4 (megakaryocyte); PTPMEG; PTPMEG1; PTPN4; tyrosine-protein phosphatase non-receptor type 4; MEG; PTPase-MEG1; megakaryocyte phosphatase; protein tyrosine phosphatase MEG1; protein-tyrosine phosphatase MEG1; megakaryocyte protein-tyrosine phosphatase; EC 3.1.3.48
Gene ID	5775
mRNA Refseq	NM_002830
Protein Refseq	NP_002821
MIM	176878
UniProt ID	P29074

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Chromosome Location	2q14.2
Function	non-membrane spanning protein tyrosine phosphatase activity; cytoskeletal protein binding; hydrolase activity; protein binding

PDB rendering based on 2cs5.

