

□ Cat # RP-679

Recombinant Human SHP-1

Size: □ 5 ug

□ 25 ug

Synonyms:

Tyrosine-protein phosphatase non-receptor type 6, EC 3.1.3.48, Protein-tyrosine phosphatase 1C, PTP-1C, Hematopoietic cell protein-tyrosine phosphatase, SH-PTP1, Protein-tyrosine phosphatase SHP-1, PTPN6, HCP, HCPH, SHP1, HPTP1C, SHP-1L.

Introduction:

SHP-1 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. N-terminal part of this PTP contains two tandem Src homolog (SH2) domains, which act as protein phospho-tyrosine binding domains, and mediate the interaction of this PTP with its substrates. This PTP is expressed primarily in hematopoietic cells, and functions as an important regulator of multiple signaling pathways in hematopoietic cells. This PTP has been shown to interact with, and dephosphorylate a wide spectrum of phospho-proteins involved in hematopoietic cell signaling. Multiple alternatively spliced variants of this gene, which encode distinct isoforms, have been reported.

Description:

SHP-1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 300 amino acids and having a molecular mass of 34.3 kDa.

The protein coding region of the catalytic domain of SHP-1 (amino acids 243-541).

The catalytic domain of SHP-1 was overexpressed as insoluble protein aggregates (inclusion bodies). The recombinant SHP-1 protein was purified by FPLC gel-filtration chromatography, after refolding of the isolated inclusion bodies in a redox buffer. Additional amino acid (Met) is attached at N-terminus.

Source:

Escherichia Coli.

Physical Appearance:

Sterile filtered colorless solution.

Formulation:

The protein (1mg/ml) contains 25mM Tris-HCl, pH 7.5, 2mM b-mercaptoethanol, 1mM EDTA, 1mM DTT and 20% Glycerol.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

Purity:

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Amino Acid Sequence:

Mgfwefes lqkqevknlh qrlegqrpen kgknryknll pfdhsrvilq grdsnippgsdyinanyiknq llgpdenakt yiasqgclea tvndfwqmw qensrvivmt trevekgrnkcipywpevgm qraygpysvt ncgehdttty klrlqvspl dngdlireiw hyqylswpdhgvpepggvl sfdqinrq eslhagpii vhc sagirt gtiividmim enistgldcddidqtiqm vraqrgmvq teaqykfiyv aiaqfietsk kklevlqsqk gqesygnity

Activity:

5,000 U/mg

Unit Definition:

One unit will hydrolyze 1 nanomole of p-nitrophenylphosphatate per minute at pH 7.5 at 37°C using 10mM of substrate

Usage:

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage. Rev.

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