



Protein Tyrosine Phosphatase PTPN6/SHP-1

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Protein Tyrosine Phosphatase PTPN6/SHP-1

Human, recombinant protein expressed in *E. coli.*, Active

Cat# CY-E1363

Amount: 50 μ g (2.8 μ g/ μ l)

Lot:

Introduction:

PTPN6/SHP-1 is expressed at high levels in hematopoietic cells of all lineages and its expression is induced early in hematopoietic differentiation. Insulin stimulates the phosphorylation and activation of PTPN6/SHP-1 by a direct association between PTPN6/SHP-1 and the insulin receptor. PTPN6/SHP-1 plays a crucial role in negatively modulating insulin action and clearance in the liver, thereby regulating whole-body glucose homeostasis. PTPN6/SHP-1 is also reported a negative regulator in the development of allergic responses such as allergic asthma.

Product Description:

Phosphatase domain of human PTPN6/SHP-1, containing an N-terminal GST tag, expressed in *E. coli.* and purified by GSH agarose chromatography.

Gene Information:

The gene accession number is NM_080548.

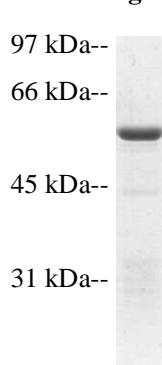
Gene Aliases:

Protein tyrosine phosphatase, non-receptor type 6, PTPN6, SHP-1, HCP, HCPH, PTP1C

Formulation:

Recombinant PTPN6/SHP-1 is supplied frozen in a buffer containing 100mM NaCl, 20mM Tris-HCl (pH 7.0), 1mM DTT, 1mM EDTA and 50% glycerol. Use a same buffer for dilution when needed.

Molecular Weight:



Coomassie blue stain

Recombinant PTPN6/SHP-1 demonstrates approximately 58 kDa band by SDS-PAGE analysis.



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Specific Activity:

29 units/ μ g. This unit value is determined at the point of production and may vary with time and various conditions. Specific Activity also varies among production lots.

Unit Definitions:

One unit is defined as the amount of phosphatase required to release 1 pmol of phosphate from CycLex's PTP substrate-1 per minute at 30°C.

Storage:

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, AVOID REPEATED HANDLING AND MULTIPLE FREEZE/THAW CYCLES.

Stability:

Unopened vial at -70 °C, for 1 year after delivery.

References:

1. Kamata T, Yamashita M, Kimura M, Murata K, Inami M, Shimizu C, Sugaya K, Wang CR, Taniguchi M, Nakayama T. src homology 2 domain-containing tyrosine phosphatase SHP-1 controls the development of allergic airway inflammation. *J Clin Invest.* 2003 Jan;111(1):109-19.
2. Dubois MJ, Bergeron S, Kim HJ, Dombrowski L, Perreault M, Fournes B, Faure R, Olivier M, Beauchemin N, Shulman GI, Siminovitch KA, Kim JK, Marette A. The SHP-1 protein tyrosine phosphatase negatively modulates glucose homeostasis. *Nat Med.* 2006 May;12(5):549-56.

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