

Product datasheet

Recombinant human PTP1B protein (Active) ab51277

1 Image

Description

**Product name** Recombinant human PTP1B protein (Active)  
**Biological activity** Specific activity is > 10,000 units/mg, and is defined as the amount of enzyme that hydrolyze 1.0 nmole of p-nitrophenyl phosphate (pNPP) per minute at pH 7.5 at 37C.

**Activity Assay:**

Prepare a 200ul reaction mix into a suitable container: The final concentrations are 10mM Tris(pH7.5), 50mM NaCl, 2mM DTT, 1mM MnCl2, 10mM pNPP.  
 Pre-warm reaction mix in heat block at 37°C  
 Add recombinant PTP1B solution with various concentrations (2ug, 3ug, 4ug) in 200ul reaction buffer.  
 Mix by inversion and incubate at 37°C for 10minutes.  
 Stop the reaction by adding the 800ul of 0.1N NaOH.  
 Record the absorbance at 405nm

**Purity** > 95 % SDS-PAGE.  
 This protein was purified by conventional column chromatographic techniques.

**Expression system** Escherichia coli

**Accession** [P18031](#)

**Protein length** Full length protein

**Animal free** No

**Nature** Recombinant

**Species** Human

**Sequence**

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MEMEKEFEQI DKSGSWAAIY QDIRHEASDF
PCRVAKLPKN KNRNRYRDVS PFDHSRIKLH
QEDNDYINAS LIKMEEAQRS YILTQGPLPN
TCGHFWEMVW EQKSRGVVML NRVMEKGSJK
CAQYWPQKEE KEMIFEDTNL KLTLISEDIK SYTVRQLEL
ENLTTQETRE ILHFHYTTWP DFGVPESPAS
FLNFLFKVRE SGSLSPEHGP VVVHCSAGIG
RSGTFCLADT CLLLMDKRKD PSSVDIKKVL
LEMRKFRMGL IQTADQLRFS YLAVIEGAKF
IMGDSSVQDQ WKELSHEDLE PPPEHIPPPP
RPPKRILEPH N
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**Predicted molecular weight** 37 kDa

**Amino acids** 1 to 321  
**Additional sequence information** (NP\_002818)

## Specifications

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Our [Abpromise guarantee](#) covers the use of **ab51277** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	SDS-PAGE Functional Studies
<b>Form</b>	Liquid
<b>Additional notes</b>	Concentration determined by Bradford assay.

## Preparation and Storage

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<b>Stability and Storage</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.  pH: 7.50 Constituents: 0.0156% Beta mercaptoethanol, 0.0154% DTT, 0.395% Tris HCl, 0.0292% EDTA, 20% Glycerol  This product is an active protein and may elicit a biological response in vivo, handle with caution.
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## General Info

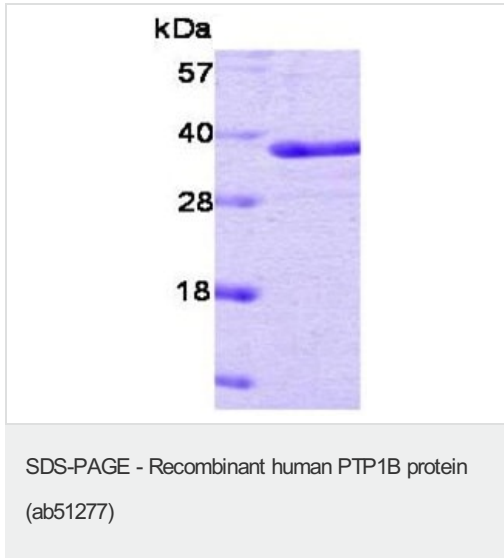
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<b>Function</b>	May play an important role in CKII- and p60c-src-induced signal transduction cascades.
<b>Sequence similarities</b>	Belongs to the protein-tyrosine phosphatase family. Non-receptor class 1 subfamily. Contains 1 tyrosine-protein phosphatase domain.
<b>Post-translational modifications</b>	Oxidized on Cys-215; the Cys-SOH formed in response to redox signaling reacts with the alpha-amido of the following residue to form a 4-amino-3-isothiazolidinone serine cross-link, triggering a conformational change that inhibits substrate binding and activity. The active site can be restored by reduction.
<b>Cellular localization</b>	Endoplasmic reticulum membrane.

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## Images

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3ug of reduced ab51277 on SDS-PAGE, stained with Coomassie Blue.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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