



Protein Tyrosine Phosphatase PTPN3/PTPH1

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

# Protein Tyrosine Phosphatase PTPN3/PTPH1

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

Cat# CY-E1360

Amount: 50 $\mu$ g (3.3 $\mu$ g/ $\mu$ l)

Lot:

### Introduction:

PTPN3/PTPH1 is characterized by N-terminal segments containing sequence motifs with homology to the cytoskeleton-associated proteins band 4.1, ezrin and talin, and PDZ domains. The C-terminal segment contains protein tyrosine phosphatase catalytic domain. The N-terminal segment of PTPN3/PTPH1 exerts an inhibitory effect on its enzymatic activity. Ectopic expression of PTPN3/PTPH1 inhibits cell growth and the mutations of PTPN3/PTPH1 are found in colorectal cancers, suggesting that PTPN3/PTPH1 is a tumor suppressor.

### Product Description:

Phosphatase domain of human PTPN3/PTPH1, containing an N-terminal GST tag, expressed in *E. coli.* and purified by GSH agarose chromatography.

### Gene Information:

The gene accession number is NM\_002829.

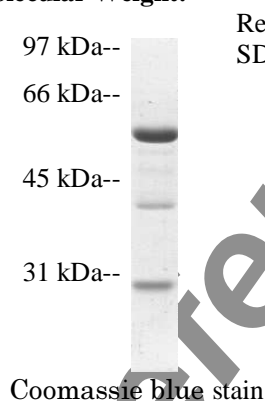
### Gene Aliases:

Protein tyrosine phosphatase non-receptor type 3, PTPN3, PTPH1

### Formulation:

Recombinant PTPN3/PTPH1 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:



Recombinant PTPN3/PTPH1 demonstrates approximately 58 kDa band by SDS-PAGE analysis.



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#### **Specific Activity:**

48 units/ $\mu$ 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 3-O-Methylfluorescein Phosphate (OMFP) 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. Zhang SH, Liu J, Kobayashi R, Tonks NK. Identification of the cell cycle regulator VCP (p97/CDC48) as a substrate of the band 4.1-related protein-tyrosine phosphatase PTPH1. J Biol Chem. 1999 Jun 18;274(25):17806-12.
2. Wang Z, Shen D, Parsons DW, Bardelli A, Sager J, Szabo S, Ptak J, Silliman N, Peters BA, van der Heijden MS, Parmigiani G, Yan H, Wang TL, Riggins G, Powell SM, Willson JK, Markowitz S, Kinzler KW, Vogelstein B, Velculescu VE. Mutational analysis of the tyrosine phosphatome in colorectal cancers. Science. 2004 May 21;304(5674):1164-6.

#### **PRODUCED BY**

CycLex Co., Ltd.  
1063-103 Terasawaoka  
Ina, Nagano 396-0002  
Japan  
Fax: +81-265-76-7618  
e-mail: [info@cyclex.co.jp](mailto:info@cyclex.co.jp)  
URL: <http://www.cyclex.co.jp>

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