



Protein Tyrosine Phosphatase PTPN21/PTPD1

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Protein Tyrosine Phosphatase PTPN21/PTPD1

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

Cat# CY-E1372

Amount: 50µg (2.2µg/µl)

Lot:

Introduction:

PTPN21/PTPD1 contains an N-terminal sequence homology to the ezrin-radixin-moesin (ERM) protein family, and a C-terminal PTP domain, and tightly associates with src tyrosine kinase. PTPN21/PTPD1 activates src tyrosine kinase and increases the magnitude and duration of epidermal growth factor (EGF) signaling. EGF receptor phosphorylation and downstream activation of ERK 1/2 and Elk1-dependent gene transcription are enhanced by PTPN21/PTPD1.

Product Description:

Phosphatase domain of human PTPN21/PTPD1, containing an N-terminal GST tag, expressed in *E. coli.* and purified by GSH agarose chromatography.

Gene Information:

The gene accession number is NM_007039.

Gene Aliases:

Protein tyrosine phosphatase non-receptor type 21, PTPN21, PTPD1, PTPRL10

Formulation:

Recombinant PTPN21/PTPD1 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:

97 kDa--
66 kDa--
45 kDa--
31 kDa--

Recombinant PTPN21/PTPD1 demonstrates approximately 58 kDa band by SDS-PAGE analysis.

Coomassie blue stain



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Specific Activity:

41 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. Moller NP, Moller KB, Lammers R, Kharitonov A, Sures I, Ullrich A. Src kinase associates with a member of a distinct subfamily of protein-tyrosine phosphatases containing an ezrin-like domain. Proc Natl Acad Sci U S A. 1994 Aug 2;91(16):7477-81.
2. Cardone L, Carlucci A, Affaitati A, Livigni A, DeCristofaro T, Garbi C, Varrone S, Ullrich A, Gottesman ME, Avvedimento EV, Feliciello A. Mitochondrial AKAP121 binds and targets protein tyrosine phosphatase D1, a novel positive regulator of src signaling. Mol Cell Biol. 2004 Jun;24(11):4613-26.

PRODUCED BY

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

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