



Protein Tyrosine Phosphatase PTPRA (1st Catalytic Domain)

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Protein Tyrosine Phosphatase PTPRA (1st Catalytic Domain)

Human, recombinant protein expressed in *E. coli.*, Active
Cat# CY-E1301

Amount: 50µg (0.44µg/µl)

Lot:

Introduction:

PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. Receptor-type tyrosine-protein phosphatase alpha (PTPRA) contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic protein tyrosine phosphatase (PTPase) domains. PTPRA has been shown to dephosphorylate and activate Src family tyrosine kinases, and is implicated in the regulation of integrin signaling, cell adhesion and proliferation. PTPRA has been also shown to interact with Grb2 and KCNA2.

Product Description:

1st PTPase domain of human PTPRA, containing 270-500 a.a., and an N-terminal GST tag, expressed in *E. coli.* and purified by GSH agarose chromatography.

Gene Information:

The gene/protein accession number is NM_002836/NP_002827.

Gene Aliases:

Protein tyrosine phosphatase receptor type A, LRP, HLPR, PTPRL2, HPTPalph, R-PTP-alpha

Formulation:

The recombinant protein 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--

Coomassie blue stain

Recombinant PTPRA (1st PTPase Domain) demonstrates approximately 58 kDa band by SDS-PAGE analysis.



Protein Tyrosine Phosphatase PTPRA (1st Catalytic Domain)
Product Data Sheet
For Research Use Only, Not for use in diagnostic procedures

Specific Activity:

89.53 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. Jirik FR, Janzen NM, Melhado IG, Harder KW. "Cloning and chromosomal assignment of a widely expressed human receptor-like protein-tyrosine phosphatase". FEBS Lett 273 (1-2): 239-42, 1990.
2. Kaplan R, Morse B, Huebner K, Croce C, Howk R, Ravera M, Ricca G, Jaye M, Schlessinger J. "Cloning of three human tyrosine phosphatases reveals a multigene family of receptor-linked protein-tyrosine-phosphatases expressed in brain". Proc Natl Acad Sci U S A 87 (18): 7000-4, 1990.
3. den Hertog, J, Hunter T. "Tight association of GRB2 with receptor protein-tyrosine phosphatase alpha is mediated by the SH2 and C-terminal SH3 domains". EMBO J. 15 (12): 3016-27. 1996.
4. den Hertog, J, Tracy S, Hunter T. "Phosphorylation of receptor protein-tyrosine phosphatase alpha on Tyr789, a binding site for the SH3-SH2-SH3 adaptor protein GRB-2 in vivo". EMBO J. 13 (13): 3020-32. 1994.
5. Zheng, Xin-Min, Resnick Ross J, Shalloway David. "Mitotic activation of protein-tyrosine phosphatase alpha and regulation of its Src-mediated transforming activity by its sites of protein kinase C phosphorylation". J. Biol. Chem. 277 (24): 21922-9. 2002.

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>

CycLex/CircuLex products are supplied for research use only. CycLex/CircuLex products and components thereof may not be resold, modified for resale, or used to manufacture commercial products without prior written approval from CycLex Co., Ltd.. To inquire about licensing for such commercial use, please contact us via email.