



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

## Protein Tyrosine Phosphatase PTPRF (1st Catalytic Domain)

Human, recombinant protein expressed in *E. coli.*, Active  
Cat# CY-E1310

Amount: 50µg (0.66µg/µl)  
Lot:

### Introduction:

PTPRF possesses an extracellular region, a single transmembrane region, and two tandem intracytoplasmic protein tyrosine phosphatase (PTPase) domains, and thus represents a receptor-type PTP. The extracellular region contains three Ig-like domains, and nine non-Ig like domains similar to that of neural-cell adhesion molecule. PTPRF was shown to function in the regulation of epithelial cell-cell contacts at adherens junctions, as well as in the control of beta-catenin signaling. An increased expression level of this protein was found in the insulin-responsive tissue of obese, insulin-resistant individuals, and may contribute to the pathogenesis of insulin resistance.

### Product Description:

1st PTPase domain of human PTPRF, containing 1377-1606 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\_002840/NP\_002831.

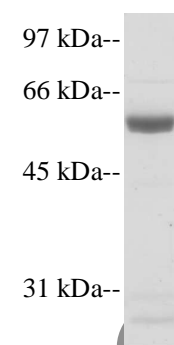
### Gene Aliases:

Protein tyrosine phosphatase receptor type F, LAR

### 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:



Coomassie blue stain

Recombinant PTPRF(1st PTPase Domain) demonstrates approximately 57 kDa band by SDS-PAGE analysis.



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**Specific Activity:**

15.88 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 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. Harder KW, Saw J, Miki N, Jirik F. "Coexisting amplifications of the chromosome 1p32 genes (PTPRF and MYCL1) encoding protein tyrosine phosphatase LAR and L-myc in a small cell lung cancer line". Genomics 27 (3): 552-3, 1995.
2. Aicher, B; Lerch M M, Müller T, Schilling J, Ullrich A. "Cellular redistribution of protein tyrosine phosphatases LAR and PTPsigma by inducible proteolytic processing". J. Cell Biol. 138 (3): 681-96, 1997.
3. Pulido, R; Serra-Pagès C, Tang M, Streuli M. "The LAR/PTP delta/PTP sigma subfamily of transmembrane protein-tyrosine-phosphatases: multiple human LAR, PTP delta, and PTP sigma isoforms are expressed in a tissue-specific manner and associate with the LAR-interacting protein LIP.1". Proc. Natl. Acad. Sci. U.S.A. 92 (25): 11686-90, 1995.
4. Serra-Pagès, C; Kedersha N L, Fazikas L, Medley Q, Debant A, Streuli M. "The LAR transmembrane protein tyrosine phosphatase and a coiled-coil LAR-interacting protein co-localize at focal adhesions". EMBO J. 14 (12): 2827-38, 1995.
5. Serra-Pagès, C; Medley Q G, Tang M, Hart A, Streuli M. "Liprins, a family of LAR transmembrane protein-tyrosine phosphatase-interacting proteins". J. Biol. Chem. 273 (25): 15611-20, 1998.

**PRODUCED BY**

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