## For Research Use Only

## Recombinant Human rPTP (His tag)



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Catalog Number: Eg0576

**Basic Information** 

ED50:

Species:

Purity: >85 %, SDS-PAGE

GeneID: 5802

**Accession:** Q13332

**Technical Specifications** 

Purity: >85 %, SDS-PAGE

**Endotoxin Level:** 

<1.0 EU/ µg protein, LAL method

HEK293-derived Human rPTP σ protein Met825-Ile1000 (Accession# Q13332) with a His Tag at theC-terminus.

**Predicted Molecular Mass:** 

21 kDa SDS-PAGE:

20-30 kDa, reducing (R) condition

Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before

lyophilization.

**Biological Activity** 

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Until expiry date, -20℃ to -80℃ as lyophilized proteins.
3 months, -20℃ to -80℃ under sterile conditions after reconstitution.

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

**Background** 

Protein tyrosine phosphatase receptor type S (PTPRS, also known as R-PTP-S, PTPSIGMA, and R-PTP-sigma) is an integral membrane protein. It can promote oligomerization by binding to large heparan sulfate proteoglycan structures, and interact with NTRK1/3, PPFIA1/2/3 (PMID: 25385546; 8524829; 9624153). The non-glycosylated molecular weight of PTPRS is 214 kDa, and the extracellular domain can be cleaved near the cell membrane by an endoprotease to generate a glycated 140 kDa protein. Variations and mutations of PTPRS are associated with Alzheimer's disease and cholangiocarcinoma (PMID: 38766183; 35991009).

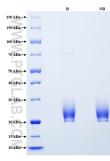
References

- 1. Coles CH, Mitakidis N. Nat Commun. 11;5:5209(2014). 2. Pulido R, Serra-Pagès C, Tang M. Proc Natl Acad Sci USA. 5;92(25):11686-90(1995). 3. Serra-Pagès C, Medley QG. J Biol Chem. 19;273(25):15611-20(1998). 4. Poirier A, Picard C, Labonté A. bioRxiv [Preprint]. 12:2024.05.12.593733(2024). 5. Lertpanprom M, Silsirivanit A. Front Public Health. 1;10:835914(2022).

**Synonyms** 

EC:3.1.3.48, PTPRS, PTPSIGMA, R PTP S, R PTP sigma, Receptor-type tyrosine-protein phosphatase S, Receptor-type tyrosine-protein phosphatase sigma, R-PTP-S, R-PTP-sigma, rPTP  $\sigma$ 

## **Selected Validation Data**



Purity of Recombinant Human rPTP  $\sigma$  was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.