





# Recombinant Receptor-type tyrosine-protein phosphatase zeta (PTPRZ1), partial

Product Code	CSB-YP019068HU
Relevance	Protein tyrosine phosphatase that negatively regulates oligodendrocyte precursor proliferation in the bryonic spinal cord. Required for normal differentiation of the precursor cells into mature, fully myelinating oligodendrocytes. May play a role in protecting oligondendrocytes against apoptosis. May play a role in the establishment of contextual mory, probably via the dephosphorylation of proteins that are part of important signaling cascades.
Abbreviation	Recombinant Human PTPRZ1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P23471
Storage Buffer	Tris-based buffer,50% glycerol
Alias	Protein-tyrosine phosphatase receptor type Z polypeptide 1;Protein-tyrosine phosphatase receptor type Z polypeptide 2R-PTP-zeta-2
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	IGWSYTGALNQKNWGKKYPTCNSPKQSPINIDEDLTQVNVNLKKLKFQGWDK TSLENTFIHNTGKTVEINLTNDYRVSGGVSEMVFKASKITFHWGKCNMSSDGS EHSLEGQKFPLEMQIYCFDADRFSSFEEAVKGKGKLRALSILFEVGTEENLDFK AIIDGVESVSRFGKQAALDPFILLNLLPNSTDKYYIYNGSLTSPPCTDTVDWIVF KDTVSISESQLAVFCEVLTMQQSGYVMLMDYLQNNFREQQYKFSRQVFSSY
Research Area	Neuroscience
Source	Yeast
Target Names	PTPRZ1
Protein Names	Protein-tyrosine phosphatase receptor type Z polypeptide 1;Protein-tyrosine phosphatase receptor type Z polypeptide 2R-PTP-zeta-2
Expression Region	36-300aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	32.1 kDa
Protein Length	Partial

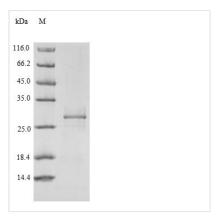
#### **CUSABIO TECHNOLOGY LLC**



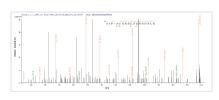




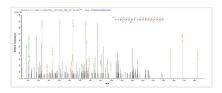
## **Image**



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of Yeast host and target protein, the LC-MS/MS Analysis result of CSB-YP019068HU could indicate that this peptide derived from Yeast-expressed Homo sapiens (Human) PTPRZ1.



Based on the SEQUEST from database of Yeast host and target protein, the LC-MS/MS Analysis result of CSB-YP019068HU could indicate that this peptide derived from Yeast-expressed Homo sapiens (Human) PTPRZ1.

## **Description**

The gene fragment corresponding to the 36-300aa of the human PTPRZ1 protein was synthesized, with appropriate restriction sites suitable for in-frame cloning into an expression vector, with N-terminal 6xHis tag. The yeast was transfected with the expression vector, and the clone was expressed upon certain induction. After the induced cell centrifugation, the recombinant protein was purified from the cell extract and presented as N-terminal 6xHis-tagged fusion. This recombinant human PTPRZ1 protein's purity is greater than 90% assayed by SDS-PAGE. The PTPRZ1 protein ran to a band of about 28 kDa molecular weight on the gel.

PTPRZ1, as a member of the PTPR family, is a single-pass type I membrane protein with two cytoplasmic tyrosine phosphatase domains (D1 and D2), an alpha-carbonic anhydrase domain (CA), chondroitin sulfate proteoglycans (CS-PGs) and a fibronectin type-III domain (FNIII). Expression of PTPRZ1 restricted to the central nervous system (CNS), and it may be involved in the regulation of specific developmental processes in the CNS. Diseases associated with PTPRZ1 include generalized epilepsy with febrile seizures plus, Type 1 and oligodendroglioma. Among its related pathways are PAK pathway and spinal cord injury. It has been found that PTPRZ1 is highly expressed in SCLC cell lines and specifically exists in human NET tissues. PTPRZ1 also interacts with its ligand pleiotrophin (PTN), which is a secreted growth factor involved in angiogenesis and tumor growth.

#### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a



# **CUSABIO TECHNOLOGY LLC**



concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

#### **Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.