

**Synonym**

PTPRD,R-PTP-delta

**Source**

Human PTPRD, His Tag(PTD-H52H9) is expressed from human 293 cells (HEK293). It contains AA Glu 21 - Glu 1265 (Accession # [P23468-1](#) ).

Predicted N-terminus: Glu 21 & Tyr 1182

**Molecular Characterization**

PTPRD(Glu 21 - Glu 1265)  
P23468-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus. This protein contains a furin-like convertase cleavage site, 1178-RSIR-1181, and will be processed into N and C-terminal fragment with calculated MW of 128.6 kDa and 11.5 kDa respectively. The protein migrates as 116-130 kDa and 12-14 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

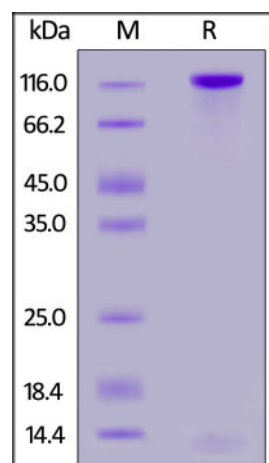
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human PTPRD, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

**Background**

Receptor-type tyrosine-protein phosphatase delta is an enzyme that is encoded by the PTPRD gene. The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. PTPRD has been shown to interact with PTPRS and liprin-alpha-1. Studies of the similar genes in chick and fly suggest the role of this PTP is in promoting neurite growth, and regulating neurons axon guidance. Multiple tissue specific alternatively spliced transcript variants of this gene have been reported. Mutations in the PTPRD gene are associated with autism, obsessive-compulsive disorder, and breast cancer.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.