

**Synonym**

ROR1,NTRKR1

**Source**

Rat ROR1, His Tag(RO1-R5221) is expressed from human 293 cells (HEK293).

It contains AA Gln 30 - Glu 403 (Accession # [D3ZZ97](#)).

Predicted N-terminus: Gln 30

**Molecular Characterization**

ROR1(Gln 30 - Glu 403) D3ZZ97	Poly-his
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This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 43.5 kDa. The protein migrates as 60-67 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

&gt;95% as determined by SDS-PAGE.

&gt;90% as determined by SEC-MALS.

**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.

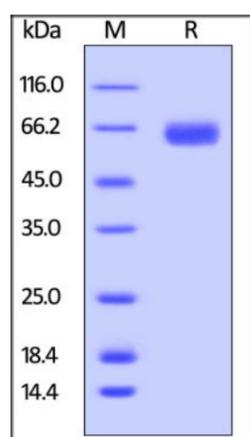
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

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

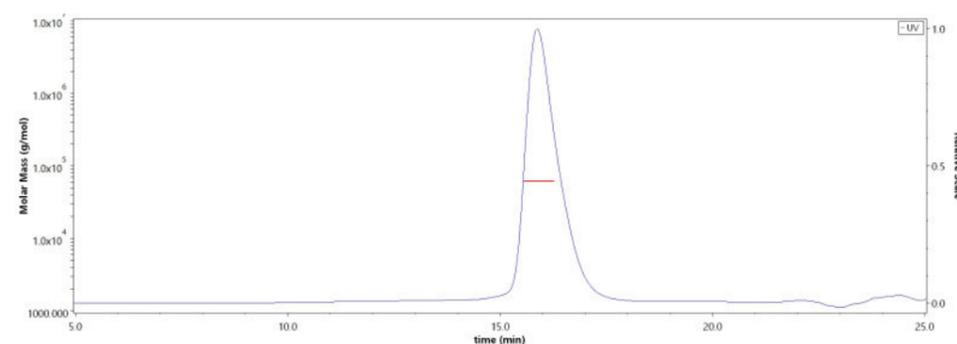
*Please avoid repeated freeze-thaw cycles.*

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.

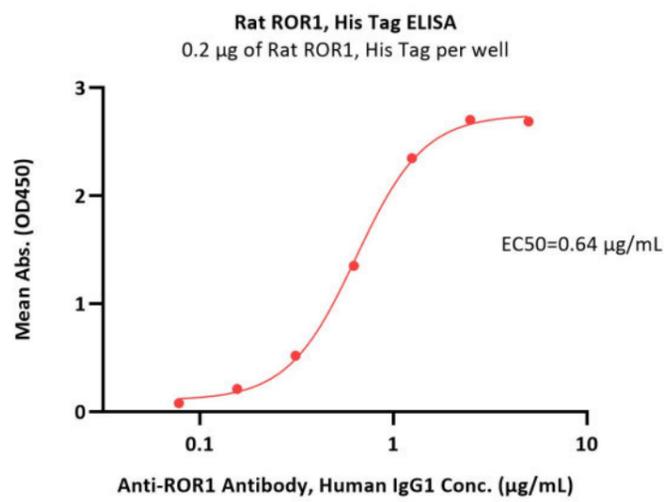
**SDS-PAGE**

Rat ROR1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA****SEC-MALS**

The purity of Rat ROR1, His Tag (Cat. No. RO1-R5221) is more than 90% and the molecular weight of this protein is around 50-65 kDa verified by SEC-MALS.

[Report](#)



Immobilized Rat ROR1, His Tag (Cat. No. RO1-R5221) at 2 µg/mL (100 µL/well) can bind Anti-ROR1 Antibody, Human IgG1 with a linear range of 0.078-1.25 µg/mL (QC tested).

## Background

Tyrosine-protein kinase transmembrane receptor ROR1 is also known as Neurotrophic tyrosine kinase, receptor-related 1 (NTRKR1), which belongs to the protein kinase superfamily or tyr protein kinase family or ROR subfamily. ROR1 contains 1 FZ (frizzled) domain, 1 Ig-like C2-type (immunoglobulin-like) domain, 1 kringle domain, 1 protein kinase domain. ROR1 is expressed at high levels during early embryonic development. The expression levels drop strongly around day 16 and there are only very low levels in adult tissues. Isoform Short is strongly expressed in fetal and adult CNS and in a variety of human cancers, including those originating from CNS or PNS neuroectoderm. ROR1 could interact with casein kinase 1 epsilon (CK1ε) to activate phosphoinositide 3-kinase-mediated AKT phosphorylation and cAMP-response-element-binding protein (CREB), which was associated with enhanced tumor-cell growth.

## Clinical and Translational Updates

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