

#### Synonym

ROR1,NTRKR1

#### **Source**

Biotinylated Mouse ROR1 Protein, Fc, Avitag(RO1-M82F3) is expressed from human 293 cells (HEK293). It contains AA Gln 30 - Glu 403 (Accession # Q9Z139).

Predicted N-terminus: Gln 30

## **Molecular Characterization**

ROR1(Gln 30 - Glu 403) Fc(Pro 100 - Lys 330) Avi P01857

This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag<sup>TM</sup>).

The protein has a calculated MW of 69.9 kDa. The protein migrates as 100-130 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

## **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than  $1.0 \ EU$  per  $\mu g$  by the LAL method.

## **Purity**

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## **Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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

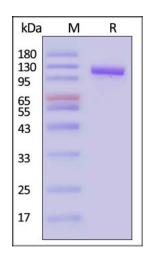
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

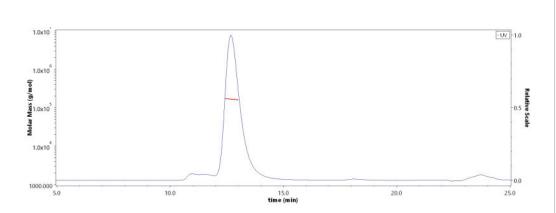
### **SDS-PAGE**



Biotinylated Mouse ROR1 Protein, Fc, Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**

### **SEC-MALS**



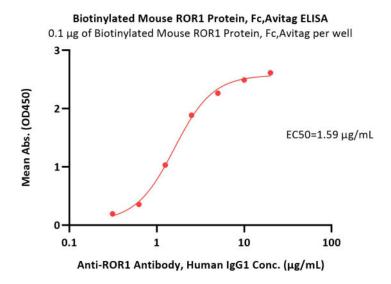
The purity of Biotinylated Mouse ROR1 Protein, Fc, Avitag (Cat. No. RO1-M82F3) is more than 90% and the molecular weight of this protein is around 155-185 kDa verified by SEC-MALS.

<u>Report</u>

# Biotinylated Mouse ROR1 Protein, Fc,Avitag™ (MALS verified)

Catalog # RO1-M82F3





Immobilized Biotinylated Mouse ROR1 Protein, Fc, Avitag (Cat. No. RO1-M82F3) at 1  $\mu$ g/mL (100  $\mu$ L/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5  $\mu$ g/well) plate can bind Anti-ROR1 Antibody, Human IgG1 with a linear range of 0.3-2.5  $\mu$ g/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 (CK1 $\epsilon$ ) 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 <u>TechSupport@acrobiosystems.com</u> if you have any question on this product.

