

**Synonym**

ROR1,NTRKR1

**Source**

FITC-Labeled Human ROR1, Fc Tag (RO1-HF253) is expressed from human 293 cells (HEK293). It contains AA Gln 30 - Glu 403 (Accession # [Q01973-1](#)). It is the FITC labeled form of Human ROR1, Fc Tag (RO1-H5250).

Predicted N-terminus: Gln 30

**Molecular Characterization**

ROR1(Gln 30 - Glu 403) Q01973-1	Fc(Pro 100 - Lys 330) P01857
------------------------------------	---------------------------------

This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 68.6 kDa. The protein migrates as 80-90 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Conjugate**

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

**Labeling**

*The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.*

**Protein Ratio**

The FITC to protein molar ratio is 1.5-3.5.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

&gt;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.*

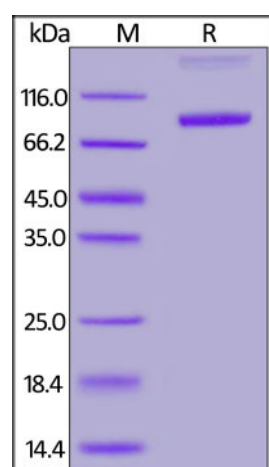
**Storage**

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

*Please protect from light and avoid repeated freeze-thaw cycles.*

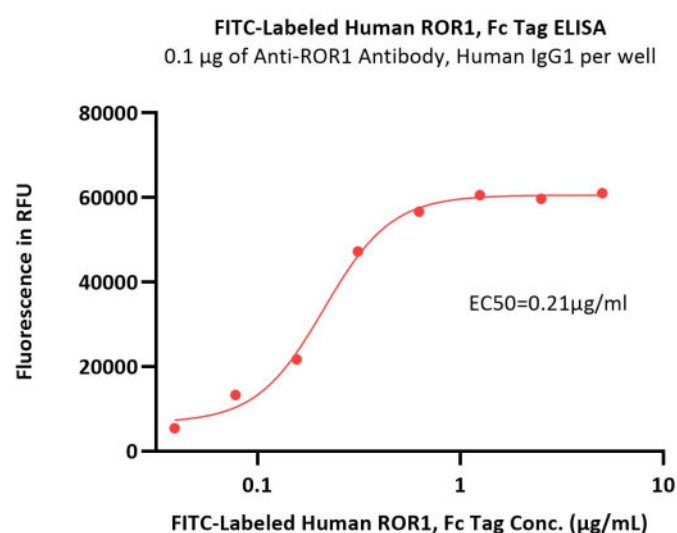
This product is stable after storage at:

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

**SDS-PAGE**

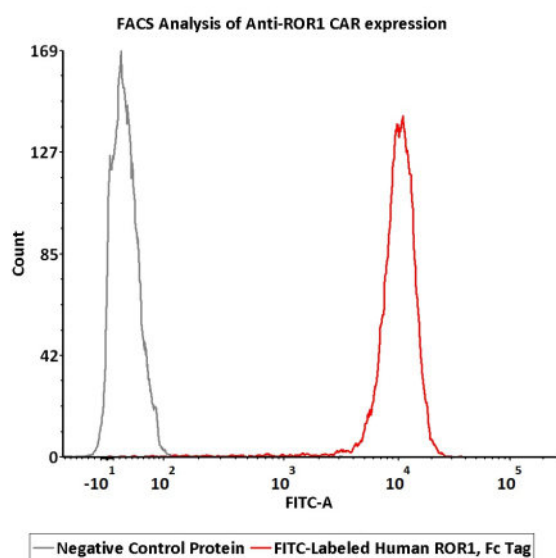
FITC-Labeled Human ROR1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**



Immobilized Anti-ROR1 Antibody, Human IgG1 at 1 µg/mL (100 µL/well) can bind FITC-Labeled Human ROR1, Fc Tag (Cat. No. RO1-HF253) with a linear range of 0.078-0.313 µg/mL (QC tested).

**Bioactivity-FACS**



2e5 of anti-ROR1 CAR-293 cells were stained with 100 µL of 10 µg/mL of FITC-Labeled Human ROR1, Fc Tag (Cat. No.RO1-HF253) and negative control protein respectively, FITC signal was used to evaluate the binding activity (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.