

Synonym

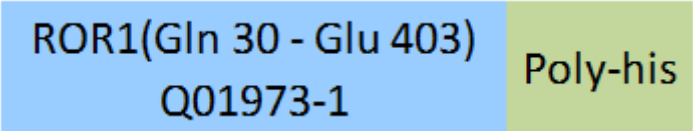
ROR1,NTRKR1

Source

FITC-Labeled Human ROR1, His Tag (RO1-HF258) 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, His Tag.

Predicted N-terminus: Gln 30

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 43.9 kDa. The protein migrates as 55-66 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

>95% 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

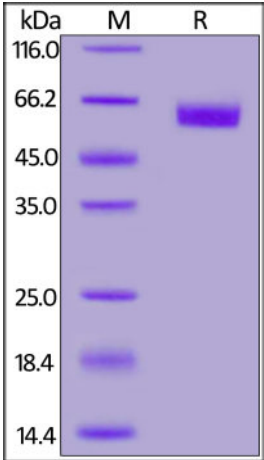
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

This product is stable after storage at:

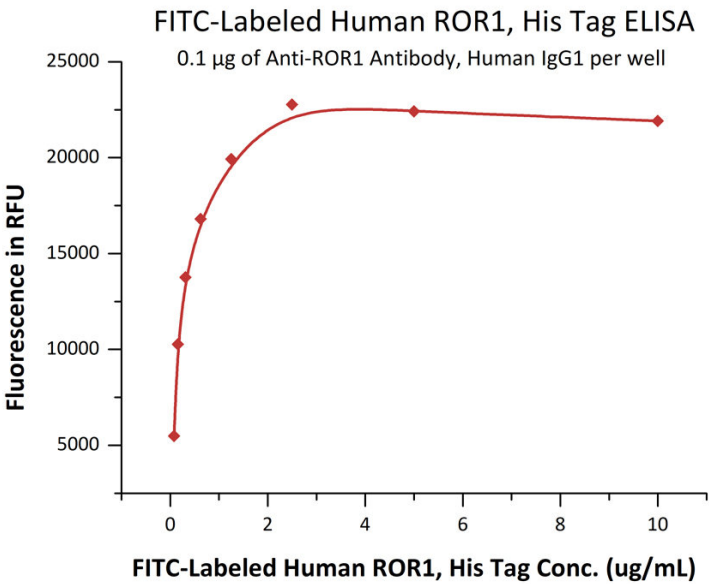
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



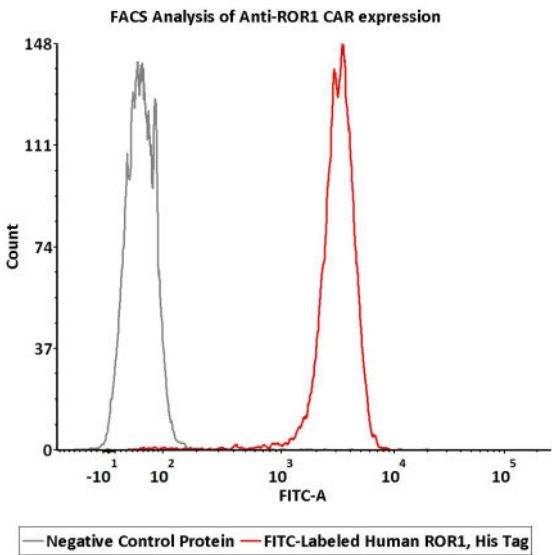
FITC-Labeled Human ROR1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Anti-ROR1 Antibody, Human IgG1 at 1 µg/mL (100 µL/well) can bind FITC-Labeled Human ROR1, His Tag (Cat. No. RO1-HF258) with a linear range of 0.078-1.25 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, His Tag (Cat. No.RO1-HF258) 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 if you have any question on this product.