



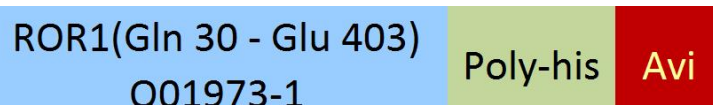
Synonym

ROR1,NTRKR1

Source

Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (RO1-H82E6) is expressed from human 293 cells (HEK293). It contains AA Gln 30 - Glu 403 (Accession # [Q01973-1](#)). In the region Gln 30 - Glu 403, the AA sequence of Human, Cynomolgus and Rhesus macaque ROR1 are homologous. Predicted N-terminus: Gln30

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 45.7 kDa. The protein migrates as 66 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ 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 µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>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

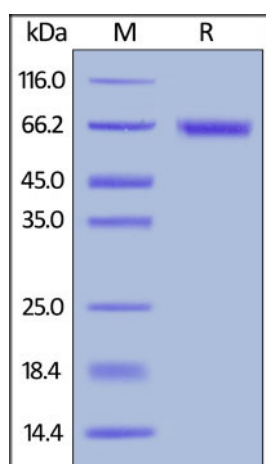
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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.

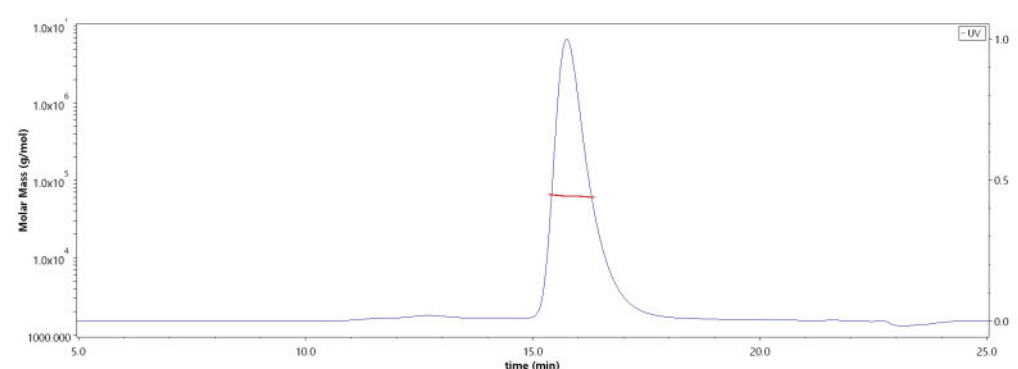
SDS-PAGE



Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag 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 Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) is more than 90% and the molecular weight of this protein is around 57-67 kDa verified by SEC-MALS.

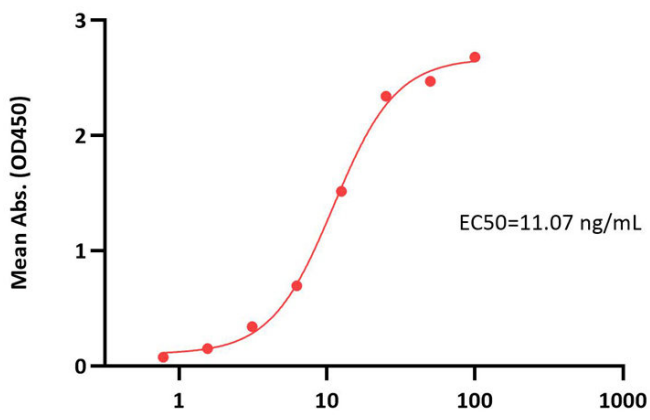
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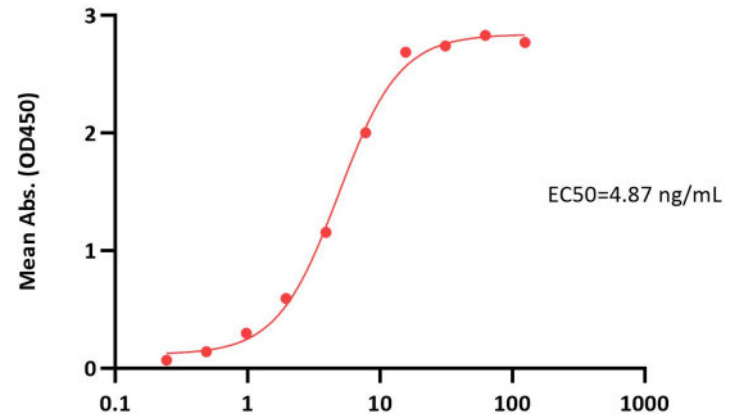


Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag ELISA
0.1 µg of Anti-ROR1 Antibody, Human IgG1 per well



Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag Conc. (ng/mL)

Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag ELISA
0.1 µg of Zilovetamab per well

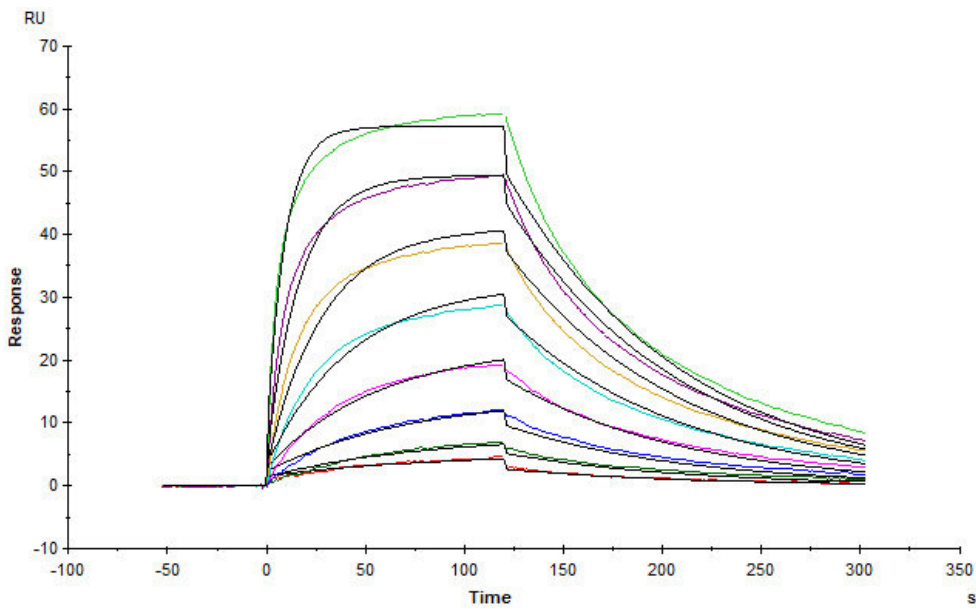


Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag Conc. (ng/mL)

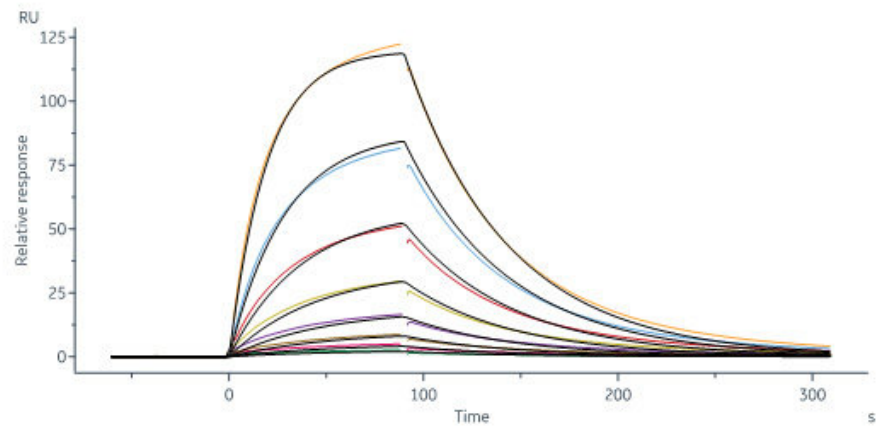
Immobilized Anti-ROR1 Antibody, Human IgG1 at 1 µg/mL (100 µL/well) can bind Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) with a linear range of 0.8-25 ng/mL (QC tested).

Immobilized Zilovetamab at 1 µg/mL (100 µL/well) can bind Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) with a linear range of 0.2-8 ng/mL (Routinely tested).

Bioactivity-SPR

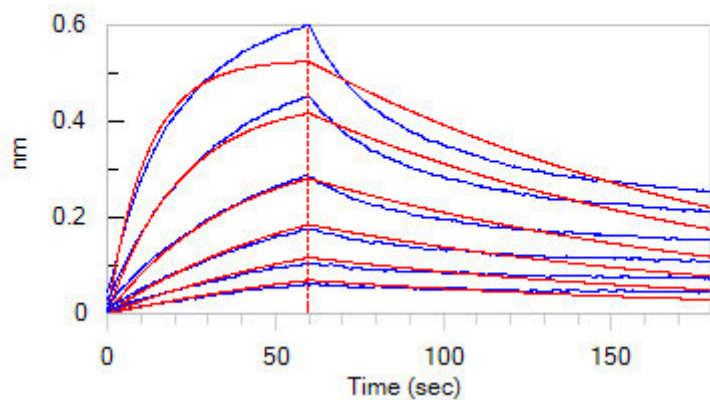


Anti-Human ROR1 mAb captured on CM5 chip via anti-mouse antibodies surface can bind Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His, Avitag (Cat. No. RO1-H82E6) with an affinity constant of 5.81 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

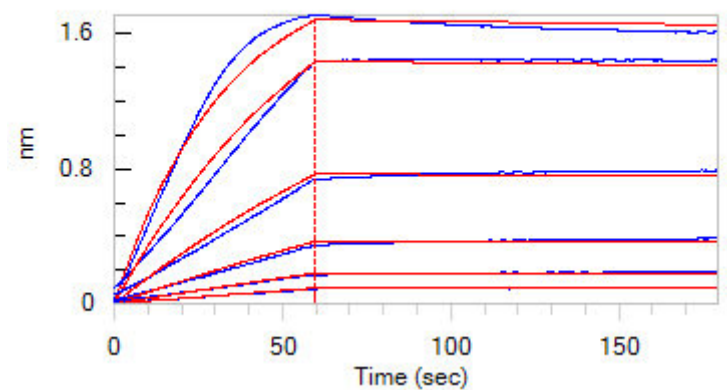


Zilovetamab captured on Protein A Chip can bind Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) with an affinity constant of 112 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Bioactivity-BLI



Loaded Zilovetamab on Protein A Biosensor, can bind Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) with



Loaded Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) on SA Biosensor, can bind Zilovetamab

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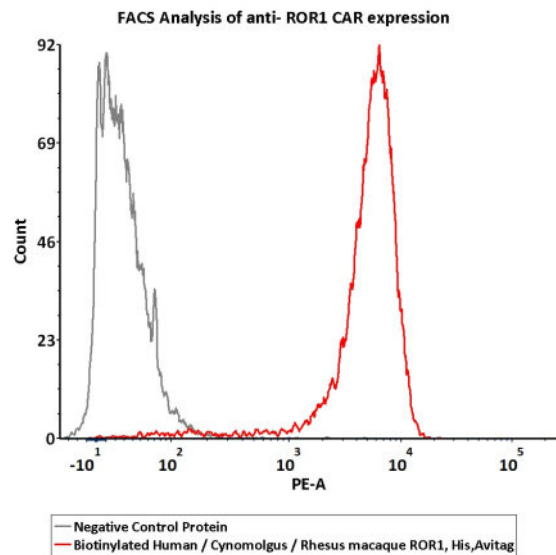




an affinity constant of 9.54 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

with an affinity constant of 0.252 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-FACS



2e5 of anti-ROR1 CAR-293 cells were stained with 100 μ L of 10 μ g/mL of Biotinylated Human / Cynomolgus / Rhesus macaque ROR1, His,Avitag (Cat. No. RO1-H82E6) and negative control protein respectively, washed and then followed by PE-SA and analyzed with FACS (Routinely 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 ϵ) 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

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