Human / Cynomolgus / Rhesus macaque ROR1 Protein, His Tag

Catalog # RO1-H522yAI2

Application

Human / Cynomolgus / Rhesus macaque ROR1 Protein, His Tag AIDD-Ready protein is designed for direct use in SPR assays. It is supplied in a sugar-free, glycerol-free formulation to eliminate refractive index interference in SPR. No desalting or buffer exchange is required before use, simplifying the SPR workflow. Each tube features a unique barcode and bottom code for precise sample identification, supporting automated, high-throughput workflows and accelerating the transition from AI prediction to wet-lab validation.

Features and Advantages

- **Directly compatible with SPR:** No desalting or buffer exchange required; supplied as a liquid to reduce sample preparation and improve experimental efficiency.
- **High batch-to-batch consistency:** Each lot is released using SPR QC to ensure experimental reproducibility.
- **Validated with representative drugs:** SPR binding activity is validated using representative drug antibodies to ensure suitability for drug screening and evaluation.
- **Unique Tube Identification:** Each tube features a unique barcode and bottom code, supporting automated and high-throughput workflows. To request the product manifest, please contact our Technical Support team or click the button below.

Synonyms

ROR1, NTRKR1

Source

Human / Cynomolgus / Rhesus macaque ROR1 Protein, His Tag (RO1-H522yAI2) 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 amino acid sequences of Human, Cynomolgus and Rhesus macaque ROR1 are identical.

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 57-65 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-HPLC.

Formulation

Formulated in a proprietary trehalose-free buffer, supplied ready-to-use for SPR/BLI analysis - no buffer exchange required.

For detailed formulation, please refer to the batch-specific COA.

Shipping and Storage

This product is supplied and shipped on dry ice.

Please avoid repeated freeze-thaw cycles.

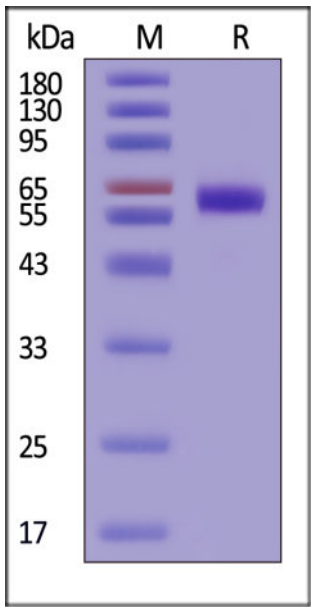
This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 12 months under sterile conditions.

ACRO Quality Management System

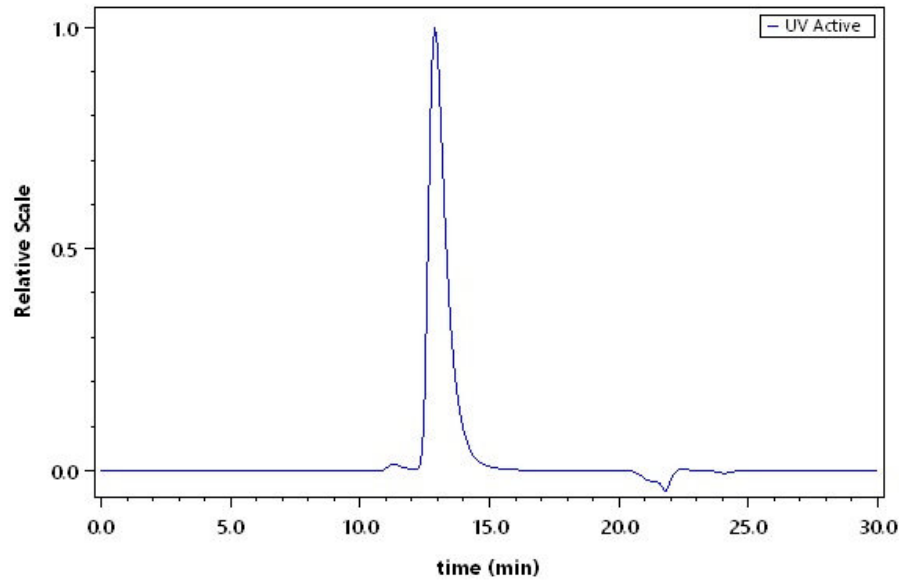
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



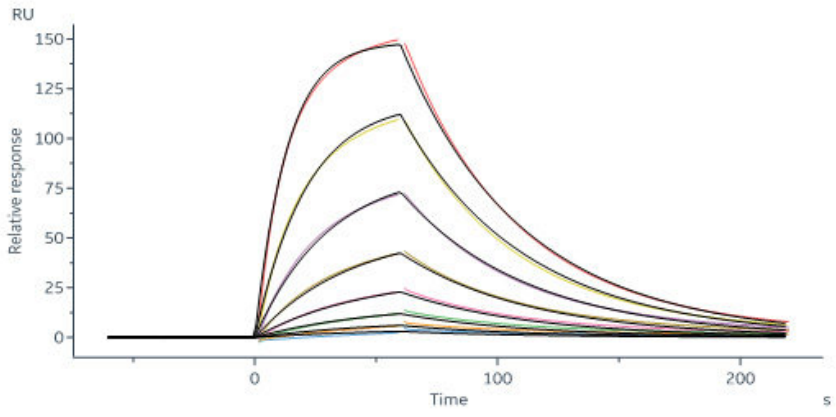
Human / Cynomolgus / Rhesus macaque ROR1 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-HPLC



The purity of Human / Cynomolgus / Rhesus macaque ROR1 Protein, His Tag (Cat. No. RO1-H522yAI2) was greater than 95% as determined by SEC-HPLC.

Activity-SPR



Zilovertamab captured on Protein A Chip can bind Human / Cynomolgus / Rhesus macaque ROR1 Protein, His Tag (Cat. No. RO1-H522yAI2) with an affinity constant of 67.0 nM as determined in a SPR assay (Biacore 8K) (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.

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