

Human Prolactin R / PRLR Protein, His Tag&Tag Free, low endotoxin (MALS verified)

Catalog # PRR-H52H3



BIOSYSTEMS
Acro

Synonyms

Prolactin R, PRLR, PRL-R

Source

Human Prolactin R Protein, His Tag&Tag Free (PRR-H52H3) is expressed from human 293 cells (HEK293). It contains AA Gln 25 - Asp 234 (Accession # [P16471-1](#)).

Predicted N-terminus: Gln 25

Molecular Characterization

The protein has a calculated MW of 31.1 kDa. The protein migrates as 33-36 kDa and 38-41 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC 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.

Shipping and Storage

This product is shipped at ambient temperature.

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

Please avoid repeated freeze-thaw cycles.

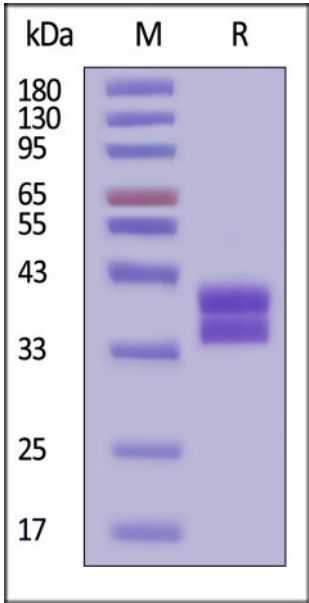
This product is stable after storage at:

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

ACRO Quality Management System

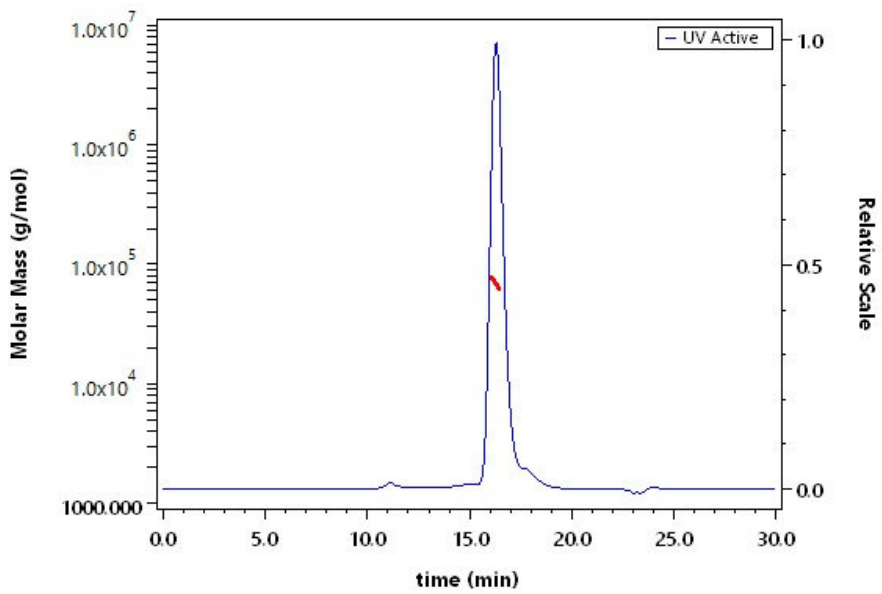
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



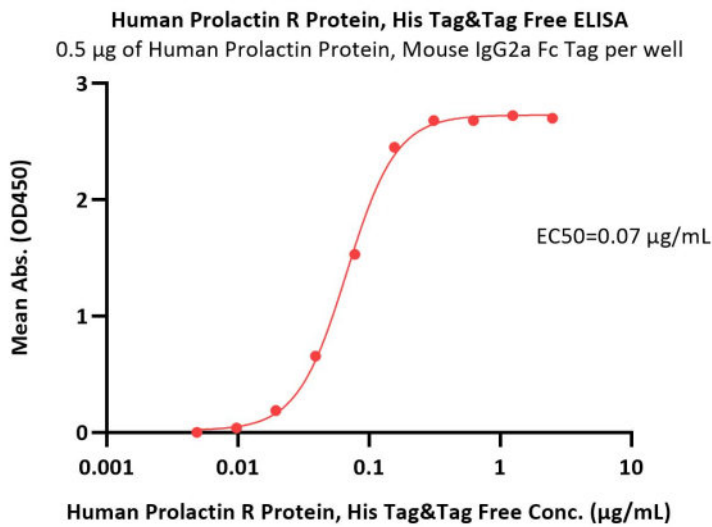
Human Prolactin R Protein, His Tag&Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



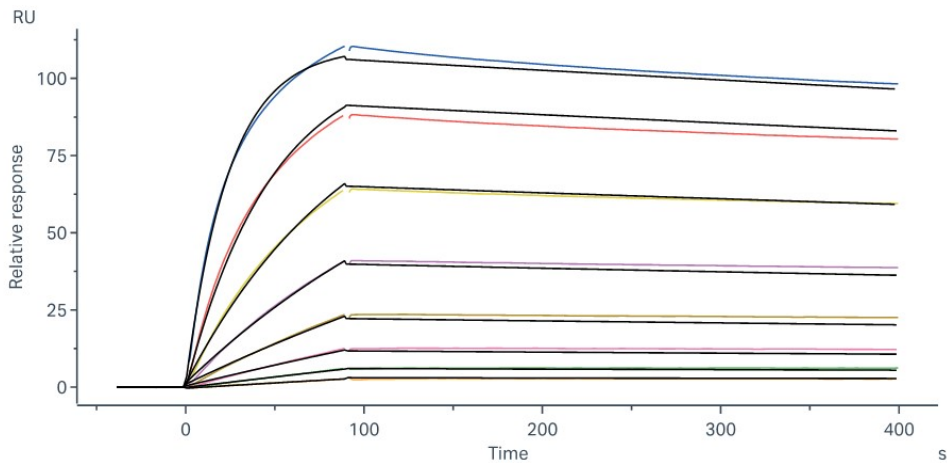
The purity of Human Prolactin R Protein, His Tag&Tag Free (Cat. No. PRR-H52H3) is more than 90% and the molecular weight of this protein is around 60-85 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human Prolactin Protein, Mouse IgG2a Fc Tag (Cat. No. PRN-H5257) at 5 µg/mL (100 µL/well) can bind Human Prolactin R Protein, His Tag&Tag Free (Cat. No. PRR-H52H3) with a linear range of 0.005-0.156 µg/mL (QC tested).

Bioactivity-SPR



Human Prolactin R Protein, His Tag&Tag Free (Cat. No. PRR-H52H3) immobilized on CM5 Chip can bind Human Prolactin Protein, His Tag (Cat. No. PRN-H52H4) with an affinity constant of 1.51 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

The prolactin receptor (PRLR) is a transmembrane protein belonging to the class I cytokine receptor superfamily, widely expressed in mammary gland, reproductive organs, liver, and brain. Signal activation is initiated when a single prolactin (PRL) molecule binds to this pre-dimerized PRLR, inducing a specific conformational

change. This triggers the associated JAK2 kinases to phosphorylate each other and the receptor, ultimately leading to the recruitment and activation of downstream STAT5 transcription factors. This precise mechanism governs essential physiological processes, including lactation, reproduction, metabolism, and immune function, and its dysregulation is implicated in diseases such as certain cancers and endometriosis.



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