

Rat Prolactin R / PRLR Protein, His Tag (MALS & SPR verified)

Catalog # PRR-R52H3



BIOSYSTEMS
Acro

Surprise Inside!

Synonym

Prolactin R, PRLR, PRL-R

Source

Rat Prolactin R Protein, His Tag (PRR-R52H3) is expressed from human 293 cells (HEK293). It contains AA Gln 20 - Asp 229 (Accession # [P05710-1](#)).

Predicted N-terminus: Gln 20

Molecular Characterization

Prolactin R(Gln 20 - Asp 229)
P05710-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 26.4 kDa. The protein migrates as 35-43 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% 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.

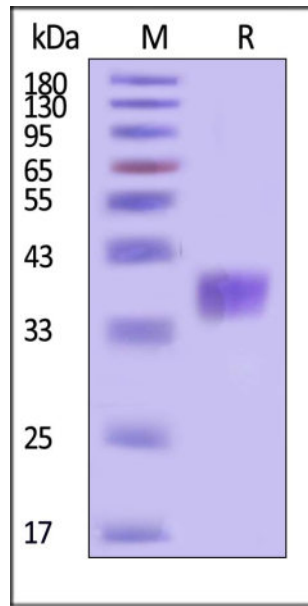
This product is stable after storage at:

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

ACRO Quality Management System

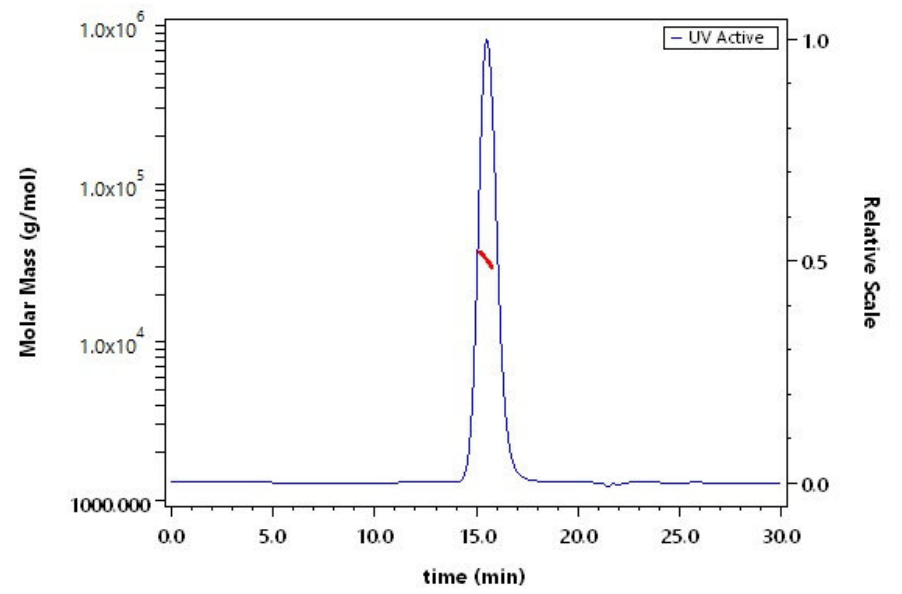
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



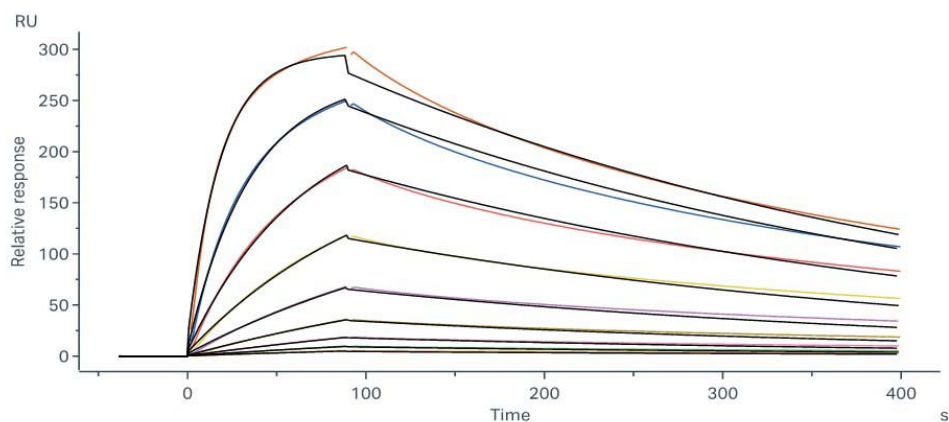
Rat Prolactin R Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Rat Prolactin R Protein, His Tag (Cat. No. PRR-R52H3) is more than 95% and the molecular weight of this protein is around 26-39 kDa verified by SEC-MALS.

Bioactivity-SPR



Rat Prolactin R Protein, His Tag (Cat. No. PRR-R52H3) immobilized on CM5 Chip can bind Mouse Prolactin Protein, His Tag (Cat. No. PRN-M52H3) with an affinity constant of 21.5 nM as determined in a SPR assay (Biacore 8K) (QC 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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