

Human Prolactin Protein, His Tag (MALS verified)

Catalog # PRN-H52H4



BIOSYSTEMS
Acro

Synonym

PRL, Prolactin

Source

Human Prolactin Protein, His Tag (PRN-H52H4) is expressed from human 293 cells (HEK293). It contains AA Leu 29 - Cys 227 (Accession # [P01236](#)).

Predicted N-terminus: Leu 29

Molecular Characterization

Prolactin(Leu 29 - Cys 227)
P01236

Poly-his

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

The protein has a calculated MW of 27.8 kDa. The protein migrates as 25-26 kDa and 29-30 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.

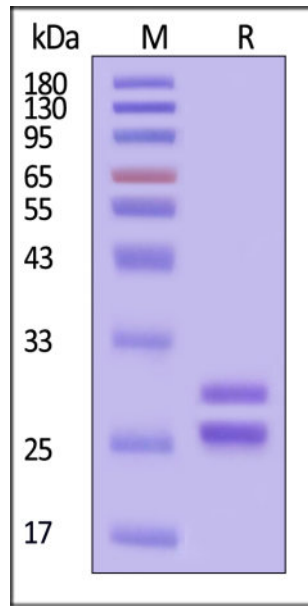
This product is stable after storage at:

- -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

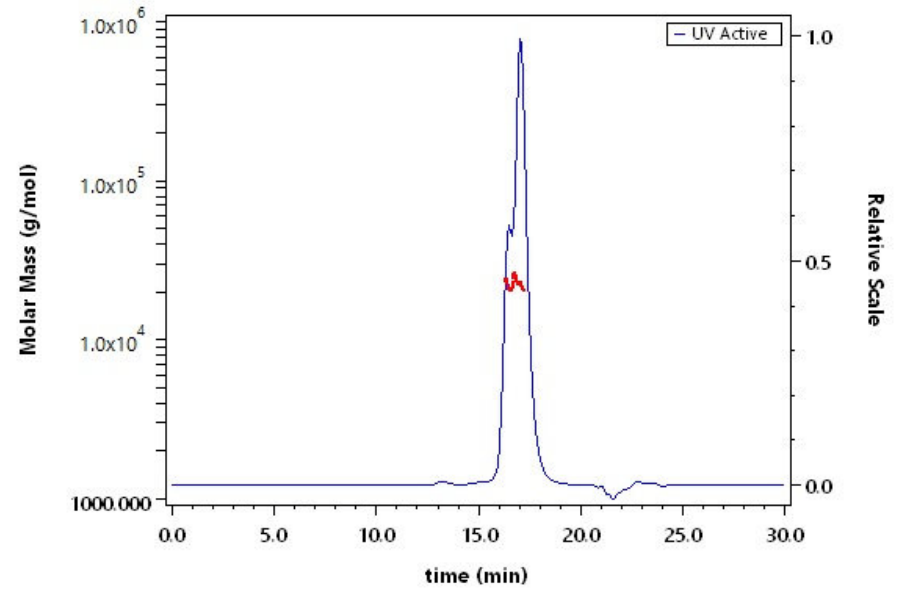
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



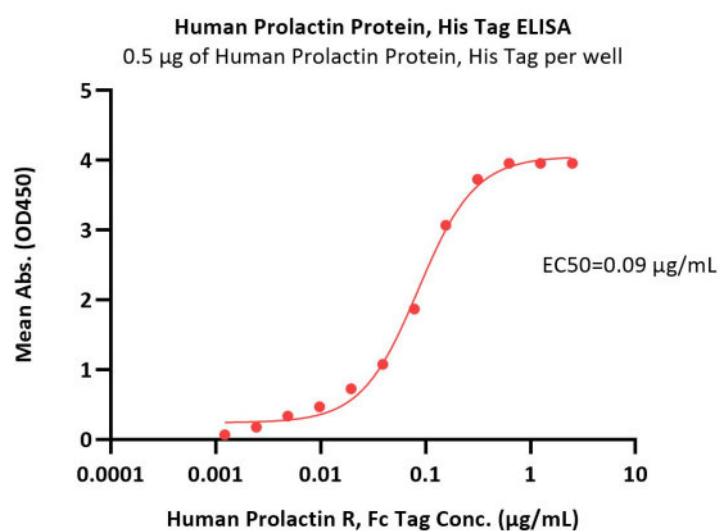
Human Prolactin Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



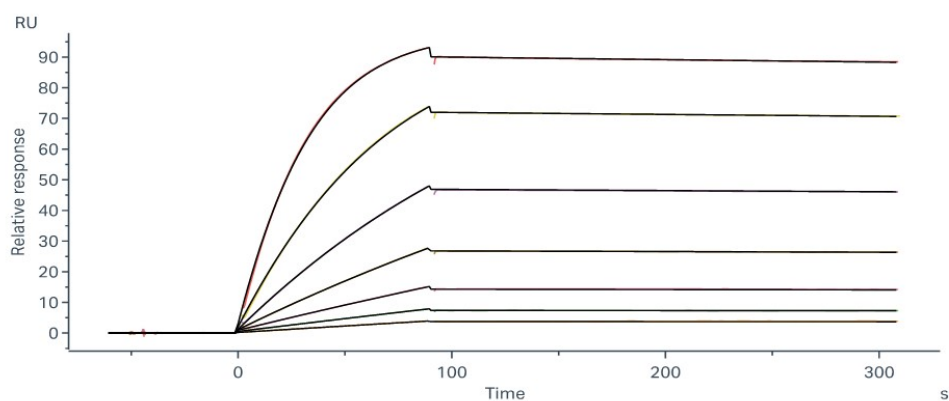
The purity of Human Prolactin Protein, His Tag (Cat. No. PRN-H52H4) is more than 95% and the molecular weight of this protein is around 22-35 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human Prolactin Protein, His Tag (Cat. No. PRN-H52H4) at 5 µg/mL (100 µL/well) can bind Human Prolactin R, Fc Tag (Cat. No. PRP-H5251) with a linear range of 0.001-0.313 µg/mL (QC tested).

Bioactivity-SPR



Human Prolactin R, Fc Tag (Cat. No. PRP-H5251) captured on Protein A Chip can bind Human Prolactin Protein, His Tag (Cat. No. PRN-H52H4) with an affinity constant of 0.129 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Prolactin is a versatile hormone primarily secreted by the anterior pituitary gland. Its most recognized function is stimulating milk production (lactogenesis) in mammals following childbirth. Beyond this, it influences a wide array of physiological processes, including immune regulation, metabolism, and reproductive functions in both sexes, contributing to behaviors like parental care. Its secretion is predominantly under inhibitory control by dopamine from the hypothalamus.

Other factors, such as thyrotropin-releasing hormone (TRH), estrogen, and suckling, can stimulate its release. Abnormal prolactin levels can lead to clinical conditions, such as hyperprolactinemia, which may cause infertility and galactorrhea.

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