# Recombinant Human Galectin-1/LGALS1 Protein

**Catalog No.: RP00007**

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## Sequence Information

**Species**
Human

**Gene ID**
3956

**Swiss Prot**
P09382

**Tags**
No tag

**Synonyms**
GAL1, GBP,LGALS1, GAL1, galectin-1,GBP,Galectin 1/LGALS1

## Product Information

**Source**
*E. coli*

**Purification**
≥ 95 % as determined by SDS-PAGE.

**Calculated MW**
14.58 kDa

**Observed MW**
14 kDa

**Endotoxin**
< 0.1 EU/μg of the protein by LAL method.

**Formulation**
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

**Reconstitution**
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

Galectin-1, also known as LGALS1 (lectin, galactoside-binding, soluble 1), is a 135 amino acid (aa), 14 kDa, pleiotropic, Non-glycosylated, monomeric or homodimeric carbohydrate-binding protein of the prototype galectin family. Galectins lack a classical signal peptide and can be localized to the cytosolic compartments, or secreted by non-classical pathways. Secreted Galectin-1 has immunosuppressive and anti-inflammatory properties and suppresses acute and chronic inflammation and autoimmunity. It contributes to negative selection of developing T cells, immunosuppression by regulatory T cells, resolution of the inflammatory response, and inhibition of immune cell migration, inflammatory cytokine production, and mast cell degranulation. Galectin-1 contributes to different steps of tumour progression including cell adhesion, migration and tumour-immune escape, suggesting that blockade of galectin-1 might result in therapeutic benefits in cancer. Several potential glycoprotein ligands for galectin-1 have been identified, including lysosome-associated membrane glycoproteins and fibronectin, laminin, as well as T-cell glycoproteins CD43 and CD45. Evidence points to Gal-1 and its ligands as one of the master regulators of such immune responses as T-cell homeostasis and survival, T-cell immune disorders, inflammation and allergies as well as host-pathogen interactions.

## Basic Information

**Description**
Recombinant Human Galectin-1/LGALS1 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Ala2-Asp135) of human Galectin-1 (Accession #NP_002296.1).

**Activity**
Measured by its ability to agglutinate mouse red blood cells. The $ED_{50}$ for this effect is 0.5-3 μg/mL.

**Shipping**
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

**Storage**
Store at -20℃

**Operational Notes**
For your safety and health, please wear a lab coat and disposable gloves for handling.

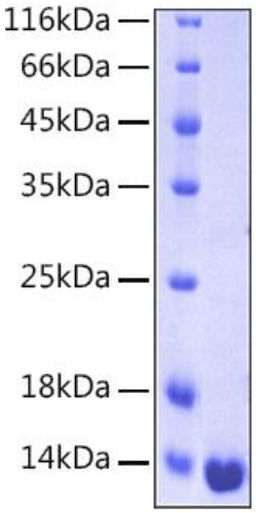
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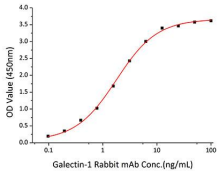


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## Validation Data




Recombinant Human Galectin-1/LGALS1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.




Immobilized recombinant Human Galectin-1 at 0.5μg/mL (100 μL/well) can bind Galectin-1 Rabbit mAb with a linear range of 0.7-1.8 ng/mL.



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