



# Recombinant Human Galectin-9 (LGALS9)

**Product Code** CSB-YP012895HU

**Relevance** Binds galactosides (PubMed:18005988). Has high affinity for the Forssman pentasaccharide (PubMed:18005988). Ligand for HAVCR2/TIM3 (PubMed:16286920). Binding to HAVCR2 induces T-helper type 1 lymphocyte (Th1) death (PubMed:16286920). Also stimulates bactericidal activity in infected macrophages by causing macrophage activation and IL1B secretion which restricts intracellular bacterial growth (By similarity). Ligand for P4HB; the interaction retains P4HB at the cell surface of Th2 T-helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration (PubMed:21670307). Ligand for CD44; the interaction enhances binding of SMAD3 to the FOXP3 promoter, leading to up-regulation of FOXP3 expression and increased induced regulatory T (iTreg) cell stability and suppressive function (By similarity). Promotes ability of mesenchymal stromal cells to suppress T-cell proliferation (PubMed:23817958). Expands regulatory T-cells and induces cytotoxic T-cell apoptosis following virus infection (PubMed:20209097). Activates ERK1/2 phosphorylation inducing cytokine (IL-6, IL-8, IL-12) and chemokine (CCL2) production in mast and dendritic cells (PubMed:24465902, PubMed:16116184). Inhibits degranulation and induces apoptosis of mast cells (PubMed:24465902). Induces maturation and migration of dendritic cells (PubMed:25754930, PubMed:16116184). Inhibits natural killer (NK) cell function (PubMed:23408620). Can transform NK cell phenotype from peripheral to decidual during pregnancy (PubMed:25578313). Astrocyte derived galectin-9 enhances microglial TNF production (By similarity). May play a role in thymocyte-epithelial interactions relevant to the biology of the thymus. May provide the molecular basis for urate flux across cell membranes, allowing urate that is formed during purine metabolism to efflux from cells and serving as an electrogenic transporter that plays an important role in renal and gastrointestinal urate excretion (By similarity). Highly selective to the anion urate (By similarity). By similarity 11 Publications Isoform 2: Acts as an eosinophil chemoattractant (PubMed:9642261). It also inhibits angiogenesis (PubMed:24333696). Suppresses IFNG production by natural killer cells (By similarity).

**Abbreviation** Recombinant Human LGALS9 protein

**Storage** The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.

**Uniprot No.** O00182

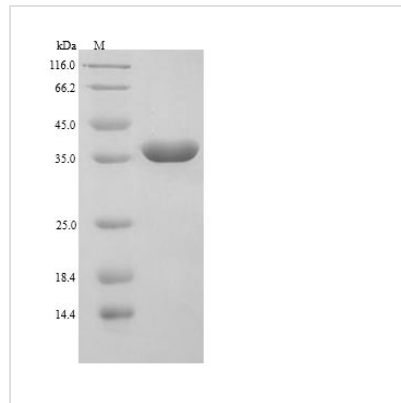
**Alias** Ecalectin Tumor antigen HOM-HD-21

**Product Type** Recombinant Protein

**Immunogen Species** Homo sapiens (Human)



<b>Purity</b>	≥ 90% as determined by SDS-PAGE.
<b>Sequence</b>	MAFSGSQAPYLSPAVPFSGTIQGGGLQDGLQITVNGTVLSSSGTRFAVNFQTGF SGNDIAFHFNPRFEDGGYVVCNTRQNGSWGPEERKTHMPFQKGMPPDLCFL VQSSDFKVMVNGILFVQYFHRVPFHRVDTISVNGSVQLSYISFQPPGVWPANP APITQTVIHTVQSAPGQMFSTPAIPPMYPHPAYPMPFITLGGLYPSKSILLS GTVLPSAQRFHINLCSGNHIAFHLPFRDENAVVRNTQIDNSWGSEERSLPRK MPFVRGQSFSVWILCEAHCLKVAVDGQHLFEYYHRLRNLPTINRLEVGGDIQL THVQT
<b>Research Area</b>	Cell Biology
<b>Source</b>	Yeast
<b>Target Names</b>	LGALS9
<b>Protein Names</b>	Recommended name: Galectin-9 Short name= Gal-9Alternative name(s): Ecalectin Tumor antigen HOM-HD-21
<b>Expression Region</b>	1-323aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-tagged
<b>Mol. Weight</b>	37.7kDa
<b>Protein Length</b>	Full Length of Isoform 2

**Image**


(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
<b>Shelf Life</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.