

### LGALS9 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14853a

### Specification

# LGALS9 Antibody (N-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW Antigen Region WB,E <u>O00182</u> <u>NP\_002299.2</u>, <u>NP\_033665.1</u> Human Rabbit Polyclonal Rabbit IgG 39518 62-90

# LGALS9 Antibody (N-term) - Additional Information

Gene ID 3965

**Other Names** Galectin-9, Gal-9, Ecalectin, Tumor antigen HOM-HD-21, LGALS9

Target/Specificity

This LGALS9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 62-90 amino acids from the N-terminal region of human LGALS9.

**Dilution** WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

LGALS9 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# LGALS9 Antibody (N-term) - Protein Information

Name LGALS9

Function Binds galactosides (PubMed:<u>18005988</u>). Has high affinity for the Forssman



pentasaccharide (PubMed:<u>18005988</u>). Ligand for HAVCR2/TIM3 (PubMed:<u>16286920</u>). 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:<u>21670307</u>). 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: 16116184, PubMed: 24465902). Inhibits degranulation and induces apoptosis of mast cells (PubMed:24465902). Induces maturation and migration of dendritic cells (PubMed:16116184, PubMed:25754930). 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).

### **Cellular Location**

Cytoplasm. Nucleus. Secreted. Note=May also be secreted by a non- classical secretory pathway (By similarity). Secreted by mesenchymal stromal cells upon IFNG stimulation (PubMed:23817958) {ECO:0000250|UniProtKB:008573, ECO:0000269|PubMed:23817958} [Isoform 3]: Secreted

#### Tissue Location

Peripheral blood leukocytes and lymphatic tissues. Expressed in lung, liver, breast and kidney with higher levels in tumor endothelial cells than normal endothelium (at protein level) (PubMed:24333696). Expressed in trophoblast cells in decidua and placenta in pregnancy (at protein level) (PubMed:23242525, PubMed:25578313). Isoform 2 is the most abundant isoform expressed in endothelial cells (PubMed:24333696). Upon endothelial cell activation isoform 2 expression decreases while expression of isoform 3 and isoform 5 increases (PubMed:24333696). Isoform 4 decreases in pathological pregnancy (PubMed:23242525).

### LGALS9 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

LGALS9 Antibody (N-term) - Images





LGALS9 Antibody (N-term) (Cat. #AP14853a) western blot analysis in WiDr cell line lysates (35ug/lane).This demonstrates the LGALS9 antibody detected the LGALS9 protein (arrow).

# LGALS9 Antibody (N-term) - Background

The galectins are a family of beta-galactoside-binding proteins implicated in modulating cell-cell and cell-matrix interactions. The protein encoded by this gene is an S-type lectin. It is overexpressed in Hodgkin's disease tissue and might participate in the interaction between the H&RS cells with their surrounding cells and might thus play a role in the pathogenesis of this disease and/or its associated immunodeficiency. Multiple alternatively spliced transcript variants have been found for this gene.

# LGALS9 Antibody (N-term) - References

Dardalhon, V., et al. J. Immunol. 185(3):1383-1392(2010) Tanikawa, R., et al. Biochem. Biophys. Res. Commun. 394(2):317-322(2010) Katoh, S., et al. Int. Arch. Allergy Immunol. 153(3):294-302(2010) Niki, T., et al. J. Biol. Chem. 284(47):32344-32352(2009) Zhang, F., et al. Zhonghua Zhong Liu Za Zhi 31(2):95-98(2009)