

Galectin-9 (14X15) Rabbit Monoclonal Antibody

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Catalog # AP93829

Product Information

Application	WB
Primary Accession	O08573
Reactivity	Mouse
Clonality	Monoclonal
Calculated MW	40036

Additional Information

Gene ID	16859
Other Names	Galectin-9, Gal-9, Lgals9
Dilution	WB~~1:1000
Storage Conditions	-20°C

Protein Information

Name	Lgals9
Function	Binds galactosides (By similarity). Has high affinity for the Forssman pentasaccharide (By similarity). Ligand for HAVCR2/TIM3 (By similarity). Binding to HAVCR2 induces T-helper type 1 lymphocyte (Th1) death (By similarity). Also stimulates bactericidal activity in infected macrophages by causing macrophage activation and IL1B secretion which restricts intracellular bacterial growth (PubMed:20937702). 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 (PubMed:25065622). Promotes ability of mesenchymal stromal cells to suppress T-cell proliferation (By similarity). Expands regulatory T- cells and induces cytotoxic T-cell apoptosis following virus infection (By similarity). Activates ERK1/2 phosphorylation inducing cytokine (IL-6, IL-8, IL-12) and chemokine (CCL2) production in mast and dendritic cells (By similarity). Inhibits degranulation and induces apoptosis of mast cells (By similarity). Induces maturation and migration of dendritic cells (By similarity). Inhibits natural killer (NK) cell function (PubMed:23408620). Can transform NK cell phenotype from peripheral to decidual during pregnancy (By similarity). Astrocyte derived galectin-9 enhances microglial TNF production (PubMed:25158758). 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 {ECO:0000250|UniProtKB:O00182} Note=May also be secreted by a non-classical secretory pathway (PubMed:9038233). Secreted by mesenchymal stromal cells upon IFNG stimulation (By similarity). {ECO:0000250|UniProtKB:O00182, ECO:0000269|PubMed:9038233}

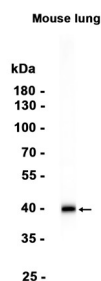
Tissue Location

Accentuated expression in liver and thymus of embryo, detected in embryonic heart, brain, lung, liver, and kidney Highly expressed in adult thymus, small intestine, and liver, and to a lesser extent in lung, kidney, spleen, cardiac, and skeletal muscle Barely detectable in brain and reticulocyte. Expressed in placenta, uterus and decidua during pregnancy (PubMed:23242525). Expressed in CD4+ T-cells with higher levels in iTreg cells than other T-cell types and sustained high levels throughout iTreg cell differentiation (at protein level) (PubMed:25065622). Expressed in myeloid cells in lung (PubMed:20937702). Constitutively expressed in microglia (PubMed:25158758). Isoform 1 is expressed exclusively in the small intestine. Isoform 2 expression in decidua increases in pathological pregnancy from gestation day 7.5 to 13.5 and it is higher than in normal pregnancy (PubMed:23242525). Isoform 3 expression in decidua is higher in normal pregnancy than in pathological pregnancy (PubMed:23242525).

Background

Binds galactosides (By similarity). Has high affinity for the Forssman pentasaccharide (By similarity). Ligand for HAVCR2/TIM3 (By similarity). Binding to HAVCR2 induces T-helper type 1 lymphocyte (Th1) death (By similarity). Also stimulates bactericidal activity in infected macrophages by causing macrophage activation and IL1B secretion which restricts intracellular bacterial growth (PubMed:20937702). 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 (PubMed:25065622).

Images



Western blot analysis of extracts from Mouse lung tissue using AP93829 at 1:1000.

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