10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Galectin 9 Rabbit pAb

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Catalog # AP94113

Product Information

Application	WB
Primary Accession	O08573
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40036
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse Galectin
Epitope Specificity	51-150/353
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Secreted. Note=May also be secreted by a non-classical secretory pathway.
SIMILARITY	Contains 2 galectin domains.
SUBUNIT	Homodimer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Binds galactosides. May play a role in thymocyte-epithelial interactions relevant to the biology of the thymus. Is a ligand for HAVCR2/TIM3. Induces T-helper type 1 lymphocyte (Th1) death (By similarity). 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. Highly selective to the anion urate.

Additional Information

Gene ID	16859
Other Names	Galectin-9, Gal-9, Lgals9
Target/Specificity	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. The isoform Long is expressed exclusively in the small intestine.
Dilution	WB=1:500-2000,Flow-Cyt=1ug/Test
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °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

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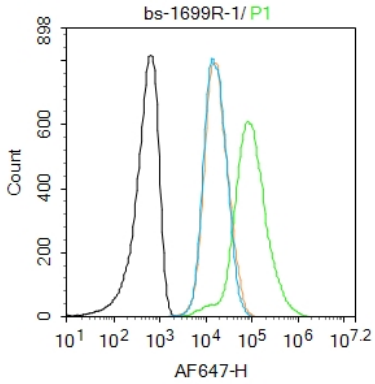
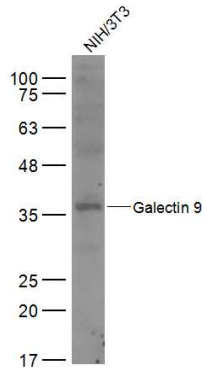
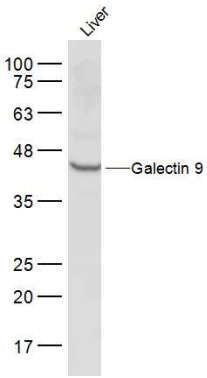
Images



Blank control:Molt4. Primary Antibody (green line): Rabbit Anti-Galectin 9 antibody (AP94113) Dilution: 1 µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1 µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Sample: NIH/3T3 Cell Lysate at 30 ug Primary: Anti-Galectin 9 (AP94113) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35-39 kD Observed band size: 35kD



Sample: Liver (Mouse) Lysate at 40 ug Primary: Anti-Galectin 9 (AP94113) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 35-39 kD Observed band size: 39 kD