

Purified anti-human Galectin-9 Antibody

Catalog# / Size	348902 / 100 µg
Clone	9M1-3
Regulatory Status	RUO
Other Names	Lgals9, Gal-9, Ecalectin, Tumor antigen HOM-HD-21, Ecalectin
Isotype	Mouse IgG1, κ
Description	<p>Galectin-9 is a mammalian lectin with a molecular weight around 50 kD. It is a member of the β-galactoside-binding family. With two conserved carbohydrate recognition domains (CRDs), galectin-9 binds small β-galactosides as well as complex glycoconjugates. HAVCR2/TIM3 has been reported as one of its ligands. Galectin-9 may be retained intracellularly or transported to the cell surface where it can be cleaved to generate a soluble form. Galectin-9 is expressed by lymphocytes, dendritic cells, granulocytes, eosinophils, astrocytes, endothelial cells, fibroblasts, and thymus epithelial cells. It can be induced by cytokines in various cell types and is involved in cell aggregation, adhesion, chemotaxis, and apoptosis; galectin-9 induces regulatory T cells and suppresses Th1 and Th17 responses.</p>

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant peptide from C-terminus of Galectin-9
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	<p>ICFC - Quality tested IHC-P - Verified FC, Block - Reported in the literature, not verified in house</p>
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume. For immunohistochemical staining on formalin-fixed paraffin-embedded tissue sections, the suggested use of this reagent is 5.0 - 10 µg per ml. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications (for the relevant formats) include: cell surface staining for flow cytometry ¹ and blocking of TIM-3 binding to galectin-9 ¹ .
Application References	<ol style="list-style-type: none">1. Klibi J, <i>et al.</i> 2009. <i>Blood</i> 113:1957. (FC, Block)2. Sada-Ovalle I, <i>et al.</i> 2012. <i>J. Immunol.</i> 189:5896. PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none">1. Wang H, <i>et al.</i> 2022. <i>Front Immunol.</i> 13:852436. PubMed2. Lee M, <i>et al.</i> 2022. <i>Nat Commun.</i> 13:1157. PubMed3. Sada-Ovalle I, <i>et al.</i> 2012. <i>J Immunol.</i> 189:5896. PubMed4. Guo Q, <i>et al.</i> 2022. <i>iScience.</i> 25:105329. PubMed5. Chakraborty A, <i>et al.</i> 2022. <i>Methods Mol Biol.</i> 2442:565. PubMed
RRID	AB_10612753 (BioLegend Cat. No. 348902)

Antigen Details

Structure	Member of the β -galactoside-binding lectin family. Molecular weight around 50 kD. Binds small β -galactosides as well as complex glycoconjugates with two conserved carbohydrate recognition domains (CRDs).
Distribution	Lymphocytes, dendritic cells, neutrophils, eosinophils, astrocytes, endothelial cells, fibroblasts, thymus stromal/epithelial cells.
Function	Cell aggregation, adhesion, chemotaxis, apoptosis, suppression of Th1 and Th17 responses, and induction of regulatory T cells.
Ligand/Receptor	HAVCR2/TIM3
Cell Type	Astrocytes, Dendritic cells, Endothelial cells, Eosinophils, Epithelial cells, Fibroblasts, Lymphocytes, Neutrophils, Tregs
Biology Area	Apoptosis/Tumor Suppressors/Cell Death, Cell Adhesion, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology
Molecular Family	Adhesion Molecules, Immune Checkpoint Receptors
Antigen References	<ol style="list-style-type: none">1. Seki M, <i>et al.</i> 2008. <i>Clin. Immunol.</i> 127:78.2. Tsuboi Y, <i>et al.</i> 2007. <i>Clin. Immunol.</i> 124:221.3. Zhu C, <i>et al.</i> 2005. <i>Nat. Immunol.</i> 6:1245.4. Dunphy JL, <i>et al.</i> 2002. <i>J. Biol. Chem.</i> 277:14916.
Gene ID	3965

Related Protocols

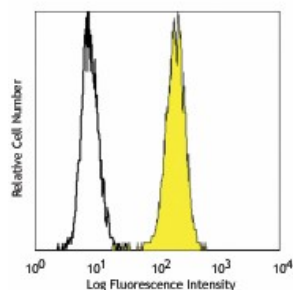
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

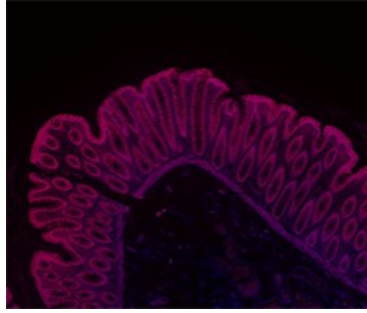
Other Formats

Purified anti-human Galectin-9, PE anti-human Galectin-9, APC anti-human Galectin-9, PerCP/Cyanine5.5 anti-human Galectin-9, FITC anti-human Galectin-9, Alexa Fluor® 488 anti-human Galectin-9, PE/Cyanine7 anti-human Galectin-9, Brilliant Violet 421™ anti-human Galectin-9, Alexa Fluor® 594 anti-human Galectin-9, Alexa Fluor® 647 anti-human Galectin-9, Ultra-LEAF™ Purified anti-human Galectin-9

Product Data



Human acute lymphoblastic leukemia cell line MOLT-4 intracellularly stained with purified 9M1-3 conjugated with PE



Human paraffin-embedded colon tissue slices were prepared with a standard protocol of deparaffinization and rehydration. Antigen retrieval was done with Tris-Buffered Saline 1X (1.0M, pH7.4) at 95°C for 40 minutes. Tissue was washed with PBS/0.05% Tween 20 twice for five minutes and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the tissue was stained with 10 µg/mL of purified anti-human Galectin-9 (clone 9M1-3) antibody overnight at 4°C. On the next day, tissue was incubated with Alexa Fluor® 594 goat anti-mouse IgG antibody (clone Poly4053) antibody (red) for an hour. Nuclei were counterstained with DAPI (blue). The image was scanned with a 10X objective and stitched with MetaMorph® software.

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587