

## Purified anti-mouse Galectin-9 Antibody

<b>Catalog# / Size</b>	137901 / 50 µg 137902 / 500 µg
<b>Clone</b>	108A2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Lgals9, Gal-9, Ecalectin
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	Galectin-9 is a mammalian lectin with a molecular weight of 40 kD that has two conserved carbohydrate recognition domains (CRDs) and forms homodimers. It recognizes N-acetyllactosamine (Galbeta1-4GlcNAc) and T-antigen (Galbeta1-3GalNAc); Tim-3 has been reported as its ligand. Galectin-9 is expressed by lymphocytes, dendritic cells, granulocytes, eosinophils, astrocytes, endothelial cells, fibroblasts and thymus epithelial cells. It may be retained intracellularly or be transported to the cell surface where it is cleaved, thereby generating a soluble form. Galectin-9 is involved in events such as cell aggregation, cell adhesion, chemotaxis and apoptosis. Importantly for the regulation of the immune response, Galectin-9 induces regulatory T cells and suppresses Th1 and Th17 responses.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Full length recombinant mouse Galectin-9 (M-type)
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">ICFC, IHC-F, WB - Verified</a> <a href="#">ELISA - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. For Western blotting, the suggested use of this reagent is 0.5 - 2.0 µg per ml. For immunohistochemical staining on frozen tissue sections, the suggested use is 5-10 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	Clone 108A2 recognizes the linker peptide of mouse Galectin-9; it does not cross-react with stable Galectin-9 (which is biologically active, genetically engineered, linker-less Galectin-9) <sup>3</sup> . Additional reported applications (for the relevant formats) include: sandwich ELISA as capture antibody <sup>1</sup> and immunohistochemical staining of paraffin <sup>2</sup> embedded tissue sections.
<b>Application References</b>	1. Tsuboi Y, <i>et al.</i> 2007. <i>Clin. Immunol.</i> 124:221. (ELISA) 2. Personal communication. (IHC-Paraffin) 3. Oomizu S, <i>et al.</i> 2012. <i>PLoS One.</i> 7:e48574. <a href="#">PubMed</a> 4. Madireddi S, <i>et al.</i> 2014. <i>J Exp Med.</i> 211:1433. <a href="#">PubMed</a>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>Product Citations</b>	1. Sudhakar JN, <i>et al.</i> 2020. <i>Nat Commun.</i> 3.434722222. <a href="#">PubMed</a> 2. Oomizu S, <i>et al.</i> 2012. <i>PLoS One.</i> 7:e48574. <a href="#">PubMed</a> 3. Smith LK, <i>et al.</i> 2021. <i>Elife.</i> 10:. <a href="#">PubMed</a> 4. Baloche V, <i>et al.</i> 2021. <i>Scientific Reports.</i> 11(1):5227. <a href="#">PubMed</a> 5. Rebelo C, <i>et al.</i> 2022. <i>Nat Commun.</i> 13:4135. <a href="#">PubMed</a>

RRID AB\_10568691 (BioLegend Cat. No. 137901)  
AB\_10570500 (BioLegend Cat. No. 137902)

## Antigen Details

<b>Structure</b>	Homodimer, each chain is a 343 aa protein of 40 kD that has two conserved carbohydrate recognition domains (CRDs)
<b>Distribution</b>	Lymphocytes, dendritic cells, neutrophils, eosinophils, astrocytes, endothelial cells, fibroblasts, thymus stromal/epithelial cells
<b>Function</b>	Cell aggregation, cell adhesion, chemotaxis, apoptosis, suppression of Th1 and Th17 responses, induction of regulatory T cells
<b>Ligand/Receptor</b>	Tim-3
<b>Cell Type</b>	Astrocytes, Dendritic cells, Endothelial cells, Eosinophils, Epithelial cells, Fibroblasts, Lymphocytes, Neutrophils, Tregs
<b>Biology Area</b>	Apoptosis/Tumor Suppressors/Cell Death, Cell Adhesion, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology
<b>Molecular Family</b>	Adhesion Molecules, Immune Checkpoint Receptors
<b>Antigen References</b>	1. Klibi J, <i>et al.</i> 2009. <i>Blood</i> 113:1957. 2. Seki M, <i>et al.</i> 2008. <i>Clin. Immunol.</i> 127:78. 3. Tsuboi Y, <i>et al.</i> 2007. <i>Clin. Immunol.</i> 124:221. 4. Zhu C, <i>et al.</i> 2005. <i>Nat. Immunol.</i> 6:1245. 5. Dunphy JL, <i>et al.</i> 2002. <i>J. Biol. Chem.</i> 277:14916.
<b>Gene ID</b>	<a href="#">16859</a>

## Related Protocols

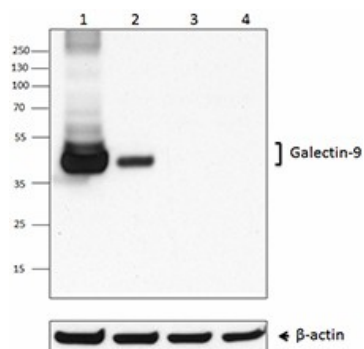
[Cell Surface Flow Cytometry Staining Protocol](#)

[Western Blotting Protocol](#)

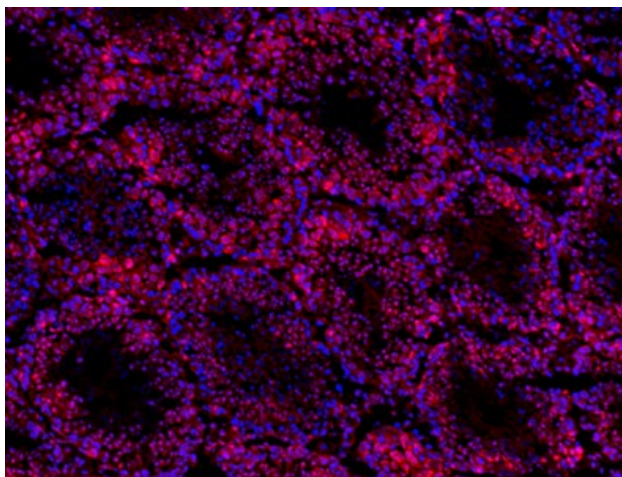
## Other Formats

Purified anti-mouse Galectin-9, PE anti-mouse Galectin-9, Alexa Fluor® 594 anti-mouse Galectin-9, Alexa Fluor® 488 anti-mouse Galectin-9, PE/Cyanine7 anti-mouse Galectin-9, APC anti-mouse Galectin-9, Alexa Fluor® 647 anti-mouse Galectin-9

## Product Data



Western blot analysis of mouse thymus (lane 1), MEF (lane 2), Jurkat (lane 3), and Raji (lane 4) cells using anti-mouse Galectin-9 (clone 108A2) antibody. Purified anti-β-actin (clone Poly6221) was used as loading control.



C57BL/6 mouse frozen testis section was fixed with 4% paraformaldehyde (PFA) for ten minutes at room temperature and blocked with 5% FBS for 30 minutes at room temperature. Then the section was stained with 10  $\mu\text{g}/\text{ml}$  of purified anti-mouse Galectin-9 (clone 108A2) antibody overnight at 4°C followed by 2.5  $\mu\text{g}/\text{mL}$  of anti-rat IgG Alexa Fluor® 594 (red) for two hours at room temperature. Nuclei were counterstained with DAPI (blue). The image was captured by 10X objective.

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