Galectin-9 (LGALS9) Antibody – Rat Monoclonal

PRODUCT OVERVIEW

Product Name	Galectin-9 (Lgals9), Monoclonal Antibody
Full Product Name	Anti-Mouse Galectin-9 In Vivo Antibody - Ultra-Low Endotoxin (RG9-1)
Product Gene Name	anti-Lgals9 antibody
Product Synonym Names	Gal-9
Clonality	Monoclonal
Isotype	Rat IgG2b Kappa
Clone Number	RG9-1
Host	Rat
Species Reactivity	Mouse
Form/Format	This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added.
Purity/Purification	>98% by SDS-PAGE and HPLC This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype.
Concentration	>=5.0mg/ml (lot specific)
Specificity	RG9-1 activity is directed against mouse galectin-9
Preparation and Storage	This antibody is stable for at least one week when stored sterile at 2-8 degree C. For long term storage aseptically aliquot in working volumes without diluting and store at -80 degree C. Avoid Repeated Freeze Thaw Cycles.
Matching Pairs	Antibody: Galectin-9 Clone #RG9-1 (MBS3030213) Isotype Control: IgG2b Clone #2024-01-02 (MBS3030254)
Molecular Weight	36,544 Da
3D Structure	ModBase 3D Structure for O08573
GMP	Manufactured according to cGMP (Current Good Manufacturing Practice) standards.
Endotoxin	<= 0.75 EU/mg as determined by the LAL method
Immunogen	Recombinant mouse galectin-9
Aggregation	Aggregation level <= 1%
Antigen Distribution	Galectin-9 is expressed by many cell types, including T cells, B cells, macrophages, dendritic cells, astrocytes, mast cells, eosinophils, fibroblasts, endothelial cells, and epithelial cells
IMPACT Pathogen Test	We use the IMPACT test generated by IDEXX Laboratories to guarantee our Ultra Low Endotoxin antibodies are pathogen free. Our mouse antibodies are tested for: Mycoplasma spp. Mycoplasma pulmonisSendai virus Mouse hepatitis virus Pneumonia virus of mice Minute virus of mice Mouse parvovirus (MPV1-5) Theiler's murine encephalomyelitis virus Murine norovirus Reovirus 3 Mouse rotavirus Ectromelia virus Lymphocytic choriomeningitis virus Polyoma virus Lactate dehydrogenase-elevating virus Mouse adenovirus (MAD1, MAD2) Mouse cytomegalovirus K virus Mouse thymic virus Hantaan virus Corynebacterium bovis Corynebacterium spp. (HAC2)
Product Categories/Family for anti-Lgals9 antibody	Ultra-Low Endotoxin; anti-mouse

Applications Tested/Suitable for anti-Lgals9 antibody	Blocking (BL)
Related Product Information for anti-Lgals9 antibody	Galectin-9 (Gal-9), a member of the galectin family of mammalian lectins, binds beta-galactoside. Gal-9 is expressed by many cell types, including endothelial cells, the epithelium of the gastrointestinal tract, T cells, B cells, macrophages, and mast cells. Gal-9 plays a significant role in innate and adaptive immunity and regulates excessive immunity by suppressing interleukin (IL)-17 producing effector T helper cells (Th)17 and Th1 as well as by augmenting Foxp3+ regulatory T cells (Treg). In addition, Gal-9 induces monocytic myeloid-derived suppressor cells (MDSCs), granulocytic MDSCs, and plasmacytoid dendritic cell-like macrophages. Gal-9 also suppresses B cell receptor signaling and is regulated by I-branching of N-glycans. Additionally, Gal-9 stimulates the maturation of dendritic cells.Gal-9 is thought to function by binding to specific carbohydrate moieties in receptor molecules expressed on the surface of its target cells, including the T-cell immunoglobulin- and mucin-domain-containing molecule-3 (Tim-3)1. Gal-9 is predominantly located in the cytoplasm but can also be secreted. Gal-9 is expressed by a variety of tumor cells, plays a role in tumor immunity, and can suppress tumor metastasis by blocking adhesion to endothelium and extracellular matrices. CD45, which regulates antigen receptor signaling, is a major glycoprotein receptor for Gal-9 on naive B cells.
Other Notes	Small volumes of anti-Lgals9 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Lgals9 purchase	MBS3030213 is an antibody targeting Lgals9. Also known as Anti-Mouse Galectin-9 In Vivo Antibody - Ultra-Low Endotoxin (RG9-1). Reactive in Mouse. Host: Rat.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Lgals9. It may not necessarily be applicable to this product.

NCBI GI #	226531139
NCBI GeneID	16859
NCBI Accession #	NP_001152773.1
UniProt Primary Accession #	O08573
UniProt Secondary Accession #	O08572; Q3UKE5; Q99L83
UniProt Related Accession #	O08573
GenBank Nucleotide #	NM_001159301.1
NCBI Official Full Name	galectin-9 isoform 2
NCBI Official Synonym Full Names	lectin, galactose binding, soluble 9
NCBI Official Symbol	Lgals9
NCBI Official Synonym Symbols	gal-9; Lgals5; LGALS35; AA407335; AI194909; AI265545; galectin-9
UniProt Protein Name	Galectin-9
Protein Family	Galectin
UniProt Gene Name	Lgals9
UniProt Synonym Gene Names	Gal-9
UniProt Entry Name	LEG9_MOUSE
NCBI Protein Information	galectin-9; lectin, galactose binding, soluble 5

UniProt Comments for Lgals9	galectin-9: Binds galactosides. Has high affinity for the Forssman pentasaccharide. May play a role in thymocyte-epithelial interactions relevant to the biology of the thymus. Inhibits cell proliferation. It is a ligand for HAVCR2/TIM3. Induces T-helper type 1 lymphocyte (Th1) death. Isoform Short acts as an eosinophil chemoattractant. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Unknown function Cellular Component: cytoplasm; extracellular region Molecular Function: galactoside binding; carbohydrate binding Biological Process: heterophilic cell adhesion
Research Articles on Lgals9	**1.** galectin-9, in addition to being an effector molecule for regulatory T cells cells, acts synergistically with TGF-beta to enforce iTreg cell differentiation and maintenance.
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