Mouse Galectin-3
Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 202213

Catalog Number: FAB1197G
100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Galectin-3 in direct ELISAs and Western blots. In direct ELISAs, this antibody shows 100% cross-reactivity with recombinant human (rh) Galectin-3 and no cross-reactivity with rhGalectin-2, -4, -8 or recombinant mouse Galectin-1, -4, or -7.
Source	Monoclonal Rat IgG_{2A} Clone # 202213
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse Galectin-3 Ala2-Ile264 Accession # P16110
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

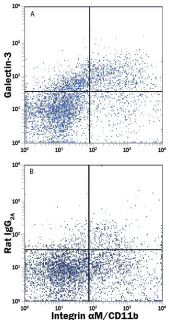
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	5 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of Galectin-3 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Rat Anti-Mouse Integrin αM/CD11b PE-conjugated Monoclonal Antibody (Catalog # FAB1124P) and either (A) Rat Anti-Mouse Galectin-3 Alexa Fluor® 488-conjugated Monoclonal Antibody (Catalog # FAB1197G) or (B) Rat IgG_{2A} Alexa Fluor 488 Isotype Control (Catalog # IC006G). View our protocol for Staining Membrane-associated Proteins.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

The galectins constitute a large family of carbohydrate-binding proteins with specificity for N-acetyl-lactosamine-containing glycoproteins. At least 14 mammalian galectins, which share structural similarities in their carbohydrate recognition domains (CRD), have been identified. The galectins have been classified as either prototype galectins (-1, -2, -5, -7, -10, -11, -13, -14), which contain one CRD and exist either as a monomer or a noncovalent homodimer; chimera galectins (Galectin-3) containing one CRD linked to a nonlectin domain; or tandem-repeat galectins (-4, -6, -8, -9, -12) that consist of two CRDs joined by a linker peptide. Galectins lack a classical signal peptide and can be localized to the cytosolic compartments where they have intracellular functions. However, via one or more as yet unidentified non-classical secretory pathways, galectins can also be secreted to act extracellularly. Individual members of the galectin family have different tissue distribution profiles and exhibit subtle differences in their carbohydrate-binding specificities. Each family member may preferentially bind to a unique subset of cell-surface glycoproteins. Galectin-3, also known as Mac-2, L29, CBP35, and εBP, is a chimera galectin that has a tendency to dimerize. Galectin-3 is expressed in tumor cells, macrophages, activated T cells, osteoclasts, epithelial cells, and fibroblasts. It binds various matrix glycoproteins including laminin, fibronectin, LAMPS, 90K/Mac-2BP, MP20, and CEA. Galectin-3 promotes cell growth and proliferation for many cell types. Galectin-3 acts intracellularly to prevent apoptosis. Depending on the cell types, Galectin-3 exhibits pro- or anti-adhesive properties. In particular, it is reported to bind NG2 when complexed to Integrin α3β1 on endothelial cells, initiating cell motility and angiogenesis. Galectin-3 has proinflammatory activities *in vitro* and *in vivo*. It induces Th1 type and inhibits Th2 type cytokine production. Galectin-3 chemoattracts monocytes and macrophages. It activates and degranulates basophils and mast cells. Elevated circulating levels of Galectin-3 has been show to correlate with the malignant potential of several types of cancer, suggesting that Galectin-3 is also involved in tumor growth and metastasis. Human and mouse Galectin-3 shares approximately 80% amino acid sequence similarity.

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