Mouse Galectin-1 PE-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: IC1245P
100 TESTS

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Galectin-1 in ELISAs and Western blots. In sandwich ELISAs, less than 5% cross-reactivity with recombinant human (rh) Galectin−1 and less than 0.5% cross-reactivity with recombinant mouse (rm) Galectin-3, rhGalectin-4, rmGalectin-7, and rhGalectin−8 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse Galectin-1 Ala2-Glu135 Accession # P16045
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 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.

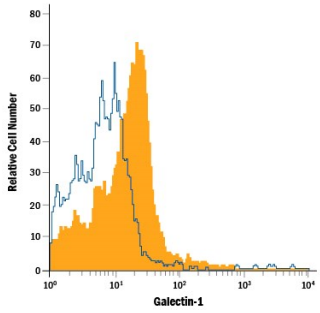
APPLICATIONS

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
Intracellular Staining by Flow Cytometry	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of Galectin-1 in Mouse Splenocytes by Flow Cytometry. Mouse splenocytes were stained with Goat Anti-Mouse Galectin-1 PE-conjugated Antigen Affinity-purified Polyclonal Antibody (Catalog # IC1245P, filled histogram) or isotype control antibody (Catalog # IC108P, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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.

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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 to date. Galectin-1 has been classified as a prototype galectin (-1, -2, -5, -7, -10, -11, -13, -14), which contains one CRD and exists either as a monomer or a noncovalent homodimer. The chimera galectins (such as Galectin-3) contain one CRD linked to a nonlectin domain, while the tandem-repeat galectins (-4, -6, -8, -9, -12) 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 and function 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 (1-5).

Mouse Galectin-1, also known as beta-galactoside-binding lectin L-14-I, lactose-binding lectin 1, S-Lac lectin 1, galaptin and 14 kDa lectin, is a monomeric or homodimeric prototype galectin that is expressed in a variety of tissues and cells including muscle, heart, lymph nodes, spleen, thymus, macrophages, B cells, T cells, dendritic cells, and tumor cells. It preferentially binds laminin, fibronectin, 90K/Mac-2BP, CD45, CD43, CD7, CD2, CD3, and ganglioside GM1. Galectin-1 modulates cell growth, proliferation and differentiation, either positively or negatively, depending on the cell type and activation status. It controls cell survival by inducing apoptosis of activated T cells and immature thymocytes. It modulates cytokine secretion by inducing Th2 type cytokines and inhibiting pro-inflammatory cytokine production. Galectin-1 can also modulate cell-cell as well as cell-matrix interactions, and depending on the cell type and developmental stage, promote cell attachment or detachment. Galectin-1 has immunosuppressive and anti-inflammatory properties, and has been shown to suppress acute and chronic inflammation and autoimmunity. Mouse and human Galectin-1 share about 88% amino acid sequence similarity (1-6).

References:

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