

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Galectin-8 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 1003601
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Galectin-8 Met1-Trp317 Accession # O00214
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Immunocytochemistry Optimal dilution of this antibody should be experimentally determined.

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 to date. The galectins have been classified into the prototype galectins (-1, -2, -5, -7, -10, -11, -13, -14), which contain one CRD and exist either as a monomer or a noncovalent homodimer. The chimera galectins (Galectin-3) containing one CRD linked to a nonlectin domain, and the tandem-repeat Galectins (-4, -6, -8, -9, -12) consisting 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 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 (1-4).

Galectin-8, also known as prostate carcinoma tumor antigen 1 (PCTA1) in human, is a tandem repeat-type galectin. Prototype (single CRD) isoforms arising through alternate gene splicing have also been identified (5). Galectin-8 is highly expressed in lung carcinomas, certain forms of prostate carcinomas, as well as other tumor cells. It binds to a subset of cell surface integrins to modulate ECM-integrin interactions. As a soluble ligand, Galectin-8 can inhibit cell adhesion (6). Immobilized Galectin-8, however, has also been shown to promote cell adhesion (7). Human and mouse Galectin-8 share approximately 80% amino acid sequence identity (4).

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