

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Galectin-7 in ELISAs and Western blots. In sandwich immunoassays, less than 5% cross-reactivity with recombinant human (rh) Galectin-7 is observed and less than 0.5% cross-reactivity with rhGalectin-1, recombinant mouse Galectin-3, rhGalectin-4, and rhGalectin-8 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Galectin-7 Ser2-Phe136 Accession # Q99ML7
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Mouse Galectin-7 (Catalog # 1304-GA)
Mouse Galectin-7 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Mouse Galectin-7 Antibody (Catalog # MAB1304)
ELISA Detection	0.1-0.4 µg/mL	Mouse Galectin-7 Biotinylated Antibody (Catalog # BAF1304)
Standard		Recombinant Mouse Galectin-7 (Catalog # 1304-GA)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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 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).

Mouse Galectin-7 is a prototype monomeric galectin. It is expressed in stratified epithelia and is significantly down-regulated in squamous cell carcinomas. Galectin-7 is a pro-apoptotic protein that is highly induced by the tumor suppressor protein p53. It functions intracellularly upstream of JNK activation to enhance cytochrome c release during apoptosis (5). Galectin-7 may also be involved in cell-cell and cell-matrix interactions and exogenous galectin has been found to accelerate the re-epithelialization of wounds (6).

References:

1. Rabinovich, A. *et al.* (2002) *TRENDS in Immunol.* **23**:313.
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3. Hughes, R.C. (2002) *Biochimie* **83**:667.
4. R&D Systems' Cytokine Bulletin, Summer (2002).
5. Kuwabara, I. *et al.* (2002) *J. Biol. Chem.* **277**:3487.
6. Cao, Z. *et al.* (2002) *J. Biol. Chem.* **277**:42299.