

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Galectin-7 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse Galectin-1, -3, -4, recombinant human (rh) Galectin-2, -7, or -8 is observed. In Western blots, approximately 20% cross-reactivity with rhGalectin-3, approximately 10% cross-reactivity with rhGalectin-7, and no cross-reactivity with rhGalectin-1 is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 212923
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse Galectin-7 Ser2-Phe136 Accession # AAK29385
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

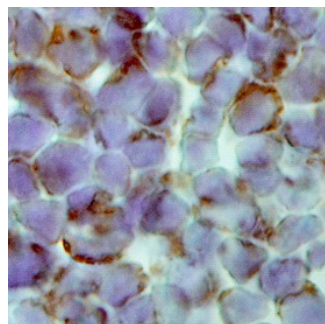
## APPLICATIONS

**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
<b>Western Blot</b>	1 µg/mL	Recombinant Mouse Galectin-7 (Catalog # <a href="#">1304-GA</a> )
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Mouse Galectin-7 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Mouse Galectin-7 Antibody (Catalog # <a href="#">MAB1304</a> )
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Mouse Galectin-7 Biotinylated Antibody (Catalog # <a href="#">BAF1304</a> )
<b>Standard</b>		Recombinant Mouse Galectin-7 (Catalog # <a href="#">1304-GA</a> )

## DATA

### Immunohistochemistry



#### Galectin-7 in Mouse Thymus.

Galectin-7 was detected in perfusion fixed frozen sections of mouse thymus using Rat Anti-Mouse Galectin-7 Monoclonal Antibody (Catalog # MAB1304) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific labeling was localized to the cytoplasm of lymphocytes. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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.
2. Rabinovich, A. *et al.* (2002) *J. Leukocyte Biology* **71**:741.
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.