

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Galectin-2 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2509A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	<i>E. coli</i> -derived human Galectin-2 Met1-Glu132 Accession # P05162
Formulation	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.

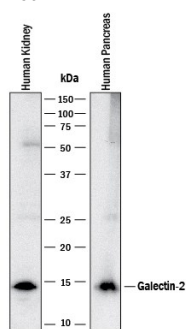
APPLICATIONS

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
Western Blot	1 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

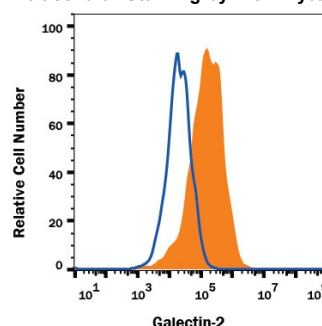
DATA

Western Blot



Detection of Human Galectin-2 by Western Blot. Western blot shows lysates of human kidney tissue and human pancreas tissue. PVDF membrane was probed with 1 µg/mL of Rabbit Anti-Human Galectin-2 Monoclonal Antibody (Catalog # MAB1153) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Galectin-2 at approximately 14 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Intracellular Staining by Flow Cytometry



Detection of Galectin-2 in Human HepG2 cells by Flow Cytometry. HepG2 human hepatocarcinoma cell line was stained with Rabbit Anti-Human Galectin-2 Monoclonal Antibody (Catalog # MAB1153, filled histogram) or Rabbit IgG control antibody (Catalog # MAB1050, open histogram) followed by APC-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111). To facilitate intracellular staining, cells were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012). View our protocol for [Staining Membrane-associated Proteins](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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 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-2 is a monomeric or homodimeric prototype galectin that is expressed in hepatoma, stomach epithelial cells and in colorectal and neural tumors. The functions of Galectin-2 has not been reported. Human and mouse Galectin-2 share approximately 65% amino acid sequence similarity (1-4).

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. (2001) Biochimie **83**:667.
4. R&D Systems Cytokine Bulletin, Summer, 2002.