Human Galectin-8 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1305

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Galectin-8 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) rhGalectin-1 and rhGalectin-3 is observed, and less than 1% cross-reactivity with rhGalectin-2, rhGalectin-4 and rhGalectin-7 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Galectin-8 Met1-Trp317 Accession # O00214
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 as a 0.2 μm filtered solution in PBS.

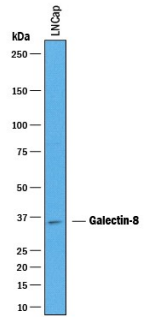
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below

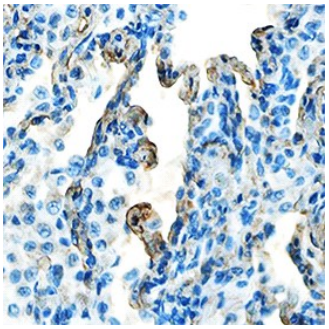
DATA

Western Blot



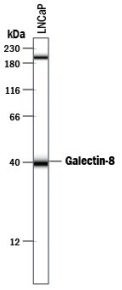
Detection of Human Galectin-8 by Western Blot. Western blot shows lysates of LNCaP human prostate cancer cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Galectin-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1305) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Galectin-8 at approximately 35 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



Galectin-8 in Human Lung. Galectin-8 was detected in immersion fixed paraffin-embedded sections of human lung using Goat Anti-Human Galectin-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1305) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western



Detection of Human Galectin-8 by Simple Western™. Simple Western lane view shows lysates of LNCaP human prostate cancer cell line, loaded at 0.2 mg/mL. A specific band was detected for Galectin-8 at approximately 40 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Galectin-8 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1305) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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. *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.** ● 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.

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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. 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 homology (4).

References:

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3. Hughes, R.C. (2002) Biochimie **83**:667.
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5. Bidon, N. *et al.* (2001) Gene **274**:253.
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