bio-techne[®] RDSYSTEMS

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF1154

DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human Galectin-3 in direct ELISAs and Western blots.	
Source	Polyclonal Goat IgG	
Purification	Antigen Affinity-purified	
Immunogen	<i>E. coli</i> -derived recombinant human Galectin-3 Ala2-Ile250 Accession # P17931.5	
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 Iyophilized or as a 0.2 μm filtered solution in PBS.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by ea	ach laboratory for each application. General Prot	tocols are available in the Technical Information section on our website.
	Recommended Concentration	Sample
Western Blot	0.1 μg/mL	See Below
Immunohistochemistry	5-15 μg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 μg/10 ⁶ cells	Human PBMCs fixed with paraformaldehyde and permeabilized with saponin
Simple Western	10 μg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

bio-techne® RDsystems

Human Galectin-3 Antibody

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Data



Simple Western

230

180

116

COL020 MCF-7 II-118-M

kDa 0100

Detection of Human Galectin-3 by Western Blot. Western blot shows lysates of COLO 205 human colorectal adenocarcinoma cell line, MCF-7 human breast cancer cell line, and U-118-MG human glioblastoma/astrocytoma cell line. PVDF membrane was probed with 0.1 µg/mL of Goat Anti-Human Galectin-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1154) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Galectin-3 at approximately 28 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Detection of Human Galectin-3

by Simple Western[™]. Simple

Western lane view shows lysates

adenocarcinoma cell line. MCF-7

human breast cancer cell line, and

glioblastoma/astrocytoma cell line,

loaded at 0.2 mg/mL. A specific

band was detected for Galectin-3 at approximately 37-38 kDa (as

indicated) using 10 µg/mL of Goat

Anti-Human Galectin-3 Antigen Affinity-purified Polyclonal

followed by 1:50 dilution of HRP-

Antibody (Catalog # AF1154)

conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # HAF109). This experiment was conducted under

of COLO 205 human colorectal

U-118-MG human





Detection of Human Galectin-3 by Simple Western[™]. Simple Western lane view shows lysates of Exosome Standards (Human Urine) (Catalog # NBP2-49840) and MCF-7 human breast cancer cell line, loaded at 0.5 mg/ml. A specific band was detected for Galectin-3 at approximately 37 kDa (as indicated) using 10 µg/ml of Goat Anti-Human Galectin-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1154) followed by HRP-conjugated Donkey Anti-Goat Secondary Antibody (Catalog # 042-206). This experiment was conducted under reducing conditions and using the 12-230kDa separation system.

Immunohistochemistry



Galectin-3 in Human Colon. Galectin-3 was detected in formalin fixed paraffin-embedded sections of human colon using Goat Anti-Human Galectin-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1154) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; (Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of immersion fixed paraffin-embedded Tissue Sections.

	reducing conditions and using the 12-230 kDa separation system.		
PREPARATION AND	STORAGE		
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.		
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.		
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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Bio-Techne[®] Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956 USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449 China | info.cn@bio-techne.com TEL: 400.821.3475



Human Galectin-3 Antibody

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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. 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 peride. 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-3, also known as Mac-2, L29, CBP35, and εBP, is a chimera galectin that has a tendency to dimerize. Besides the soluble protein, alternatively spliced forms of chicken Galectin-3 containing a transmembrane-spanning domain and a leucine zipper motif have been reported. Galectin-3 is expressed in tumor cells, macrophages, activated T cells, osteoclasts, epithelial cells, and fibroblasts. It binds various matrix glycoproteins including laminin, fibronectin, LAMPS, 90K/Mac-2BP, MP20, and CEA. Galectin-3 centil growth and proliferation for many cell types. Galectin-3 acts intracellularly to prevent apoptosis. Depending on the cell types, Galectin-3 exhibits pro- or anti-adhesive properties. Galectin-3 has proinflammatory activities in vitro and in vivo. It induces pro-inflammatory and inhibits Th2 type cytokine production. Galectin-3 chemoattrac

References:

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- 5. Gorski, J.P. et al. (2002) J. Biol. Chem. 277:18840.