

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human Galectin-3BP/MAC-2BP in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse MAC-2BP is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Galectin-3BP/MAC-2BP Val19-Asp585 Accession # Q08380
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.

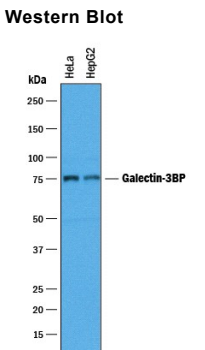
APPLICATIONS

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	0.2 µg/mL	See Below
Immunocytochemistry	1-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below

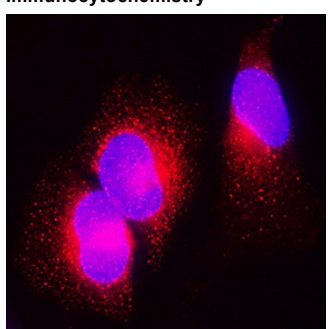
DATA

Western Blot



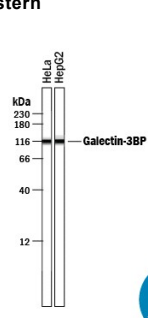
Detection of Human Galectin-3BP/MAC-2BP by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 0.2 µg/mL of Goat Anti-Human Galectin-3BP/MAC-2BP Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2226) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Galectin-3BP/MAC-2BP at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry




Galectin-3BP/MAC-2BP in HeLa Human Cell Line. Galectin-3BP/MAC-2BP was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human Galectin-3BP/MAC-2BP Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2226) at 1.7 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Simple Western



Detection of Human Galectin-3BP/MAC-2BP by Simple Western™. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line and HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Galectin-3BP/MAC-2BP at approximately 115 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Galectin-3BP/MAC-2BP Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2226) 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. <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

Galectin-3 binding protein (Galectin-3BP), also known as MAC-2 binding protein (MAC-2BP or M2BP), and the 90 kDa tumor associated antigen (TAA90K or 90K), is a secreted glycoprotein of the scavenger receptor cysteine-rich (SRCR) superfamily (1, 2). Galectin-3BP binds Galectin-3 (formerly MAC-2) with high affinity, but also binds Galectins -1 and -7, several collagen types, fibronectin, β 1 integrins and nidogen (3, 6, 7). It is widely expressed in all extracellular fluids and in pericellular areas of cell-rich tissues (1-3). The 585 amino acid (aa) human Galectin-3BP contains an 18 aa signal sequence and four definitive domains (4-6). Domain 1 is a group A scavenger receptor domain (4), domain 2 is a BTB/POZ domain that strongly mediates dimerization (5), and domain 3 is an IVR domain, that is also found following the POZ domain in *Drosophila* kelch protein. Although little is known about domain 4, recombinant domains 3 and 4 reproduce the solid-phase adhesion profile of full-length Galectin-3BP (5, 6). Glycosylation at seven N-linked sites, generates a molecular size of 85-97 kDa (1, 2, 6). Galectin-3BP dimers form linear and ring-shaped oligomers, most commonly decamers and dodecamers (3, 5). *In vitro*, Galectin-3BP has been shown to stimulate natural killer cells and lymphokine-activated killer cell activity (2). High Galectin-3BP expression has been correlated with tumor aggressiveness in several, but not all, study systems (7). Mature human Galectin-3BP shares 69% aa identity with mouse cyclophilin C-associated protein (CyCAP), which does not appear to bind Galectin-3 (8). Human Galectin-3BP also shares 73%, 67% and 68% aa identity with relatively uncharacterized orthologs in dog, rat and cow, respectively. A human N-terminally truncated sequence that begins within the BTB/POZ domain (aa 196) has been reported.

References:

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