

# galectin-3 (M3/38.1.2.8 HL.2): sc-81728

## BACKGROUND

Galectins are a family of soluble  $\beta$ -galactoside-binding animal lectins that modulate cell-to-cell adhesion and cell-to-extracellular matrix (ECM) interactions and play a role in tumor progression, pre-mRNA splicing and apoptosis. The galectin-3 protein, also known as Mac-2, hMac-2, GALBP, CBP35 or LGALS3, contains a single carbohydrate binding domain, which binds galactose-containing glycoconjugates. galectin-3 is expressed in colonic and intestinal epithelium, inflammatory macrophages, papillary and follicular carcinomas, neoplastic astrocytes and some B and T lymphocytes. Upregulated expression of galectin-3 is involved in cancer progression and metastasis. galectin-3 mediates the endocytosis of  $\beta$ 1 integrins in a lactose-dependent manner and is associated with thyroid malignancy and Crohn's disease. It may also be used as a marker for diagnosing cases involving Hurthle cell adenomas and carcinomas.

## REFERENCES

1. Huflejt, M.E., et al. 1997. Strikingly different localization of galectin-3 and galectin-4 in human colon adenocarcinoma T84 cells. Galectin-4 is localized at sites of cell adhesion. *J. Biol. Chem.* 272: 14294-14303.
2. Shimonishi, T., et al. 2001. Expression of endogenous galectin-1 and galectin-3 in intrahepatic cholangiocarcinoma. *Hum. Pathol.* 32: 302-310.

## CHROMOSOMAL LOCATION

Genetic locus: LGALS3 (human) mapping to 14q22.3; Lgals3 (mouse) mapping to 14 C1.

## SOURCE

galectin-3 (M3/38.1.2.8 HL.2) is a rat monoclonal antibody raised against Galectin-3 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

galectin-3 (M3/38.1.2.8 HL.2) is recommended for detection of galectin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for galectin-3 siRNA (h): sc-155994, galectin-3 siRNA (m): sc-35443, galectin-3 shRNA Plasmid (h): sc-155994-SH, galectin-3 shRNA Plasmid (m): sc-35443-SH, galectin-3 shRNA (h) Lentiviral Particles: sc-155994-V and galectin-3 shRNA (m) Lentiviral Particles: sc-35443-V.

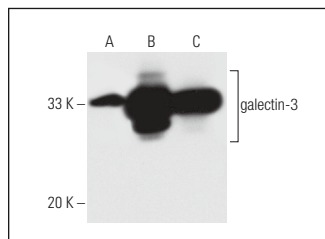
Molecular Weight of galectin-3: 31 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 nuclear extract: sc-2149 or galectin-3 (h): 293T Lysate: sc-116566.

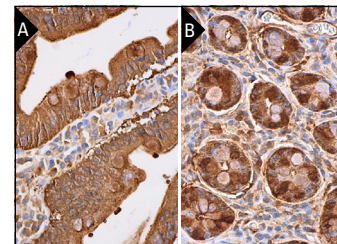
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



galectin-3 (M3/38.1.2.8 HL.2): sc-81728. Western blot analysis of galectin-3 expression in non-transfected 293T: sc-117752 (A), human galectin-3 transfected 293T: sc-116566 (B) and HeLa (C) whole cell lysates.



galectin-3 (M3/38.1.2.8 HL.2): sc-81728. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic and nuclear staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and nuclear staining of glandular cells and endothelial cells (B).

## SELECT PRODUCT CITATIONS

1. Dobrian, A.D., et al. 2018. Activation of the 12/15 lipoxygenase pathway accompanies metabolic decline in db/db pre-diabetic mice. *Prostaglandins Other Lipid Mediat.* 136: 23-32.
2. Angelim, M.K.S.C., et al. 2018. Embryonic macrophages and microglia ablation alter the development of dorsal root ganglion sensory neurons in mouse embryos. *Glia* 66: 2470-2486.
3. Wie, J., et al. 2021. A growth-factor-activated lysosomal K<sup>+</sup> channel regulates Parkinson's pathology. *Nature* 591: 431-437.
4. Hindy, G., et al. 2022. Increased soluble urokinase plasminogen activator levels modulate monocyte function to promote atherosclerosis. *J. Clin. Invest.* 132: e158788.
5. Song, J., et al. 2023. Age-associated adipose tissue inflammation promotes monocyte chemotaxis and enhances atherosclerosis. *Aging Cell* 22: e13783.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **galectin-3 (B2C10): sc-32790** for galectin-3 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.