SANTA CRUZ BIOTECHNOLOGY, INC.

galectin-3 (M3/38): sc-23938



BACKGROUND

Galectins are a family of soluble β -galactoside-binding animal lectins that modulate cell-to-cell adhesion and cell-to-extracellular matrix (ECM) inter-actions 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 β 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.

CHROMOSOMAL LOCATION

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

SOURCE

galectin-3 (M3/38) is a rat monoclonal antibody raised against galectin-3 of mouse origin.

PRODUCT

Each vial contains 200 $\mu g~lg G_{2a}$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

galectin-3 (M3/38) is available conjugated to agarose (sc-23938 AC), 500 μ g/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-23938 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23938 PE), fluorescein (sc-23938 FITC), Alexa Fluor* 488 (sc-23938 AF488), Alexa Fluor* 546 (sc-23938 AF546), Alexa Fluor* 594 (sc-23938 AF594) or Alexa Fluor* 647 (sc-23938 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor* 680 (sc-23938 AF680) or Alexa Fluor* 790 (sc-23938 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

galectin-3 (M3/38) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffinembedded 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: MCF7 whole cell lysate: sc-2206, A-375 cell lysate: sc-3811 or NIH/3T3 whole cell lysate: sc-2210.

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): sc-23938. Western blot analysis of galectin-3 expression in SW480 nuclear extract (**A**) and A-375 (**B**), NIH/3T3 (**C**), T986 (**D**), WEHI-231 (**E**) and MCF7 (**F**) whole cell lysates.

galectin-3 (M3/38): sc-23938. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum (**A**) and human colon (**B**) tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Matarrese, P., et al. 2000. Galectin-3 overexpression protects from apoptosis by improving cell adhesion properties. Int. J. Cancer 85: 545-554.
- Fritsch, K., et al. 2016. Galectin-3 interacts with components of the nuclear ribonucleoprotein complex. BMC Cancer 16: 502.
- 3. Lu, S.L., et al. 2017. Endothelial cells are intrinsically defective in xenophagy of *Streptococcus pyogenes*. PLoS Pathog. 13: e1006444.
- Seo, S.U., et al. 2018. mTORC1/2 inhibitor and curcumin induce apoptosis through lysosomal membrane permeabilization-mediated autophagy. Oncogene 37: 5205-5220.
- Abobeleira, J.P., et al. 2024. Evidence of browning and inflammation features in visceral adipose tissue of women with endometriosis. Arch. Med. Res. 55: 103064.
- Liu, X., et al. 2024. Compound (E)-2-(3,4-dihydroxystyryl)-3-hydroxy-4Hpyran-4-one downregulation of Galectin-3 ameliorates Aβ pathogenesis-induced neuroinflammation in 5 × FAD mice. Life Sci. 357: 123085.
- Shi, Y.A., et al. 2024. Capsule-deficient group A Streptococcus evades autophagy-mediated killing in macrophages. mBio 15: e0077124.
- Gahlot, P., et al. 2024. Lysosomal damage sensing and lysophagy initiation by SPG20-ITCH. Mol. Cell 84: 1556-1569.e10.
- Shan, F., et al. 2024. Galectin-3 inhibition reduces fibrotic scarring and promotes functional recovery after spinal cord injury in mice. Cell Biosci. 14: 128.
- Shin, H.J., et al. 2025. Microglial galectin-3 increases with aging in the mouse hippocampus. Korean J. Physiol. Pharmacol. 29: 215-225.

RESEARCH USE

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA