

galectin-3 (B-2): sc-25279

BACKGROUND

Galectins are a family of soluble β -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 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 Hurtle 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 (B-2) is a mouse monoclonal antibody raised against amino acids 1-160 of galectin-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

galectin-3 (B-2) is recommended for detection of galectin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

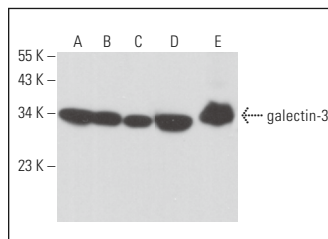
Molecular Weight of galectin-3: 31 kDa.

Positive Controls: A2058 whole cell lysate: sc-364178, COLO 205 whole cell lysate: sc-364177 or SW480 cell lysate: sc-2219.

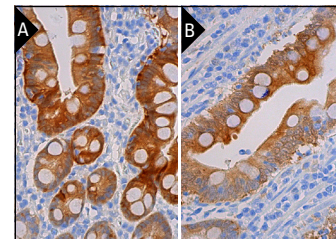
STORAGE

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

DATA



galectin-3 (B-2): sc-25279. Western blot analysis of galectin-3 expression in SW480 (A), A2058 (B), COLO 205 (C) and J774.A1 (D) whole cell lysates and mouse skin tissue extract (E).



galectin-3 (B-2): sc-25279. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum (A) and human small intestine (B) tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Dalton, P., et al. 2007. Membrane trafficking of CD98 and its ligand galectin-3 in BeWo cells—implication for placental cell fusion. *FEBS J.* 274: 2715-2727.
2. Oishi, T., et al. 2007. Galectin-3 may contribute to Cisplatin resistance in clear cell carcinoma of the ovary. *Int. J. Gynecol. Cancer* 17: 1040-1046.
3. Li, X., et al. 2010. c-Abl and Arg tyrosine kinases regulate lysosomal degradation of the oncoprotein galectin-3. *Cell Death Differ.* 17: 1277-1287.
4. Sun, R., et al. 2017. Traditional Chinese medicine baixin decoction improves cardiac fibrosis of rats with dilated cardiomyopathy. *Exp. Ther. Med.* 13: 1900-1906.
5. Cui, L., et al. 2020. The lysosomal membrane protein Lamp2 alleviates lysosomal cell death by promoting autophagic flux in ischemic cardiomyocytes. *Front. Cell Dev. Biol.* 8: 31.
6. Lv, Y., et al. 2024. TLR2-ERK signaling pathway regulates expression of galectin-3 in a murine model of OVA-induced allergic airway inflammation. *Toxicol. Lett.* 397: 55-66.

RESEARCH USE

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

PROTOCOLS

See our web site at 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.