

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

## 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

- 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.
- 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  $\mu$ g IgG<sub>1</sub> 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  $\mu$ 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), 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.

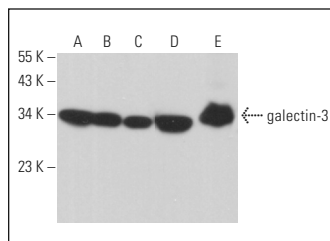
Molecular Weight of galectin-3: 31 kDa.

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

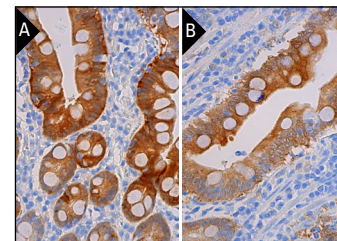
## STORAGE

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

- 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.
- 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.
- 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.
- Sun, R., et al. 2017. Traditional Chinese medicine baixin decoction improves cardiac fibrosis of rats with dilated cardiomyopathy. *Exp. Ther. Med.* 13: 1900-1906.
- 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.

## 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.

## CONJUGATES

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.