

galectin-3 (N-20): sc-19280

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 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.
- Guittaut, M., et al. 2001. Identification of an internal gene to the human galectin-3. *J. Biol. Chem.* 276: 2652-2667.
- Jensen-Jarolim, E., et al. 2001. Anti-galectin-3 IgG autoantibodies in patients with Crohn's disease characterized by means of phage display peptide libraries. *J. Clin. Immunol.* 21: 348-356.
- Medeiros-Neto, G., et al. 2001. Differential reactivity for galectin-3 in Hurthle cell adenomas and carcinomas. *Endocr. Pathol.* 12: 275-279.
- Inufusa, H., et al. 2001. Role of galectin-3 in adenocarcinoma liver metastasis. *Int. J. Oncol.* 19: 913-919.
- Yoshii, T., et al. 2001. Galectin-3 phosphorylation is required for its anti-apoptotic function and cell cycle arrest. *J. Biol. Chem.* 277: 6852-6857.

CHROMOSOMAL LOCATION

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

SOURCE

galectin-3 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of galectin-3 of human origin.

STORAGE

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

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-19280 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

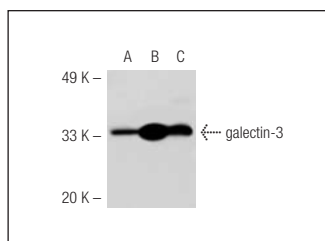
galectin-3 (N-20) is recommended for detection of galectin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 μ g per 100–500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) 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.

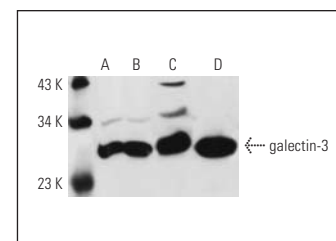
Molecular Weight of galectin-3: 31 kDa.

Positive Controls: galectin-3 (h): 293T Lysate: sc-116566, galectin-3 (h2): 293T Lysate: sc-176286 or HeLa whole cell lysate: sc-2200.

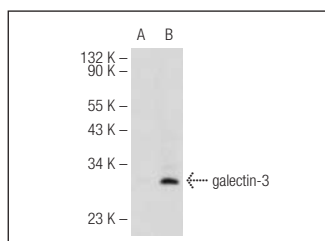
DATA



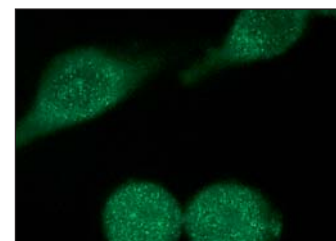
galectin-3 (N-20): sc-19280. Western blot analysis of galectin-3 expression in non-transfected 293T: sc-117752 (A), human galectin-3 transfected 293T: sc-116566 (B) and HeLa (C) whole cell lysates.



galectin-3 (N-20): sc-19280. Western blot analysis of galectin-3 expression in HeLa (A), MCF7 (B), SW480 (C) and WEHI-231 (D) nuclear extracts.



galectin-3 (N-20): sc-19280. Western blot analysis of galectin-3 expression in non-transfected: sc-117752 (A) and human galectin-3 transfected: sc-176286 (B) 293T whole cell lysates.



galectin-3 (N-20): sc-19280. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Deschildre, C., et al. 2007. Expression of galectin-3 and its regulation in the testes. *Int. J. Androl.* 30: 28-40.