

galectin-3 (h): 293T Lysate: sc-116566

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

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2. Couraud, P.O., et al. 1989. Molecular cloning, characterization, and expression of a human 14 kDa lectin. *J. Biol. Chem.* 264: 1310-1316.
3. Cherayil, B.J., et al. 1990. Molecular cloning of a human macrophage lectin specific for galactose. *Proc. Natl. Acad. Sci. USA* 87: 7324-7338.
4. Lotz, M.M., et al. 1993. Decreased expression of Mac-2 (carbohydrate binding protein 35) and loss of its nuclear localization are associated with the neoplastic progression of colon carcinoma. *Proc. Natl. Acad. Sci. USA* 90: 3466-3470.
5. 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.
6. Medeiros-Neto, G., et al. 2001. Differential reactivity for galectin-3 in Hurthle cell adenomas and carcinomas. *Endocr. Pathol.* 12: 275-279.
7. 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.

PRODUCT

galectin-3 (h): 293T Lysate represents a lysate of human galectin-3 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

galectin-3 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive galectin-3 antibodies. Recommended use: 10-20 μ l per lane.

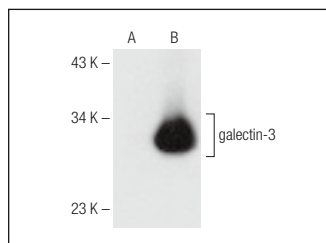
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

galectin-3 (H-5): sc-374253 is recommended as a positive control antibody for Western Blot analysis of enhanced human galectin-3 expression in galectin-3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



galectin-3 (H-5): sc-374253. Western blot analysis of galectin-3 expression in non-transfected: sc-117752 (A) and human galectin-3 transfected: sc-116566 (B) 293T whole cell lysates.

RESEARCH USE

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