

galectin-4 (h): 293T Lysate: sc-114260

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. One member of this family, galectin-4, also known as Gal-4, L36 or LGALS4 maps to human chromosome 19q13.2. The galectin-4 protein is composed of 323 amino acids and contains two homologous carbohydrate recognition domains (CRD) and all amino acids typically conserved in the galectin family. Expression of galectin-4 correlates with the malignant potential of human hepatocellular carcinoma (HCC) and is differentially regulated depending on cell-cell contact, serum growth factors, cell growth and cell differentiation status. Galectin-4 expression is detected in epithelial cells of the colon, rectum, intestine, and in HT29 and LS174T cell lines. Galectin-4 is under-expressed in colorectal cancer and is preferentially upregulated in cells prone to peritoneal dissemination.

REFERENCES

1. Couraud, P.O., et al. 1989. Molecular cloning, characterization, and expression of a human 14-kDa lectin. *J. Biol. Chem.* 264: 1310-1316.
2. Chiu, M.L., et al. 1994. An adherens junction protein is a member of the family of lactose-binding lectins. *J. Biol. Chem.* 269: 31770-31776.
3. Rechreche, H., et al. 1997. Cloning and expression of the mRNA of human galectin-4, an S-type lectin down-regulated in colorectal cancer. *Eur. J. Biochem.* 248: 225-230.
4. Gitt, M.A., et al. 1998. Galectin-4 and galectin-6 are two closely related lectins expressed in mouse gastrointestinal tract. *J. Biol. Chem.* 273: 2954-2960.
5. Gitt, M.A., et al. 1998. Sequence, structure, and chromosomal mapping of the mouse *Lgals6* gene, encoding galectin-6. *J. Biol. Chem.* 273: 2961-2970.
6. Kondoh, N., et al. 1999. Identification and characterization of genes associated with human hepatocellular carcinogenesis. *Cancer Res.* 59: 4990-4996.
7. Hippo, Y., et al. 2001. Differential gene expression profiles of scirrhous gastric cancer cells with high metastatic potential to peritoneum or lymph nodes. *Cancer Res.* 61: 889-895.

CHROMOSOMAL LOCATION

Genetic locus: LGALS4 (human) mapping to 19q13.2.

PRODUCT

galectin-4 (h): 293T Lysate represents a lysate of human galectin-4 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.

RESEARCH USE

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

APPLICATIONS

galectin-4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive galectin-4 antibodies. Recommended use: 10-20 μ l per lane.

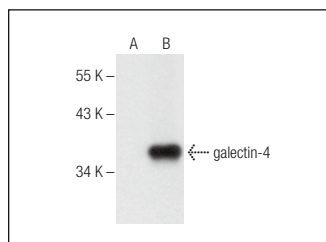
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

galectin-4 (F-1): sc-376603 is recommended as a positive control antibody for Western Blot analysis of enhanced human galectin-4 expression in galectin-4 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-4 (F-1): sc-376603. Western blot analysis of galectin-4 expression in non-transfected: sc-117752 (A) and human galectin-4 transfected: sc-114260 (B) 293T whole cell lysates.

PROTOCOLS

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