SANTA CRUZ BIOTECHNOLOGY, INC.

galectin-2 (C6): sc-517450

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Galectin-2, also known as LGALS2, Lactose-binding lectin 2 or HL14, is structurally closely related to galectin-1, but is expressed primarily in the gastrointestinal tract. Galectin-2 induces apoptosis in activated T cells and binds to the cytokine lymphotoxin-a (LTA) with possible implications in risk of myocardial infarction.

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. Hirabayashi, J., et al. 1989. Cloning and nucleotide sequence of a full-length cDNA for human 14 kDa β-galactoside-binding lectin. Biochim. Biophys. Acta 1008: 85-91.
3. Mehrabian, M., et al. 1993. Two members of the S-lac lectin gene family, LGALS1 and LGALS2, reside in close proximity on human chromosome 22q12-q13. Genomics 15: 418-420.
4. Cornillot, J.D., et al. 1998. Production and characterization of a monoclonal antibody able to discriminate galectin-1 from galectin-2 and galectin-3. Glycobiology 8: 425-432.
5. Oka, T., et al. 1999. Identification and cloning of rat galectin-2: expression is predominantly in epithelial cells of the stomach. Arch. Biochem. Biophys. 361: 195-201.
6. Abedin, M.J., et al. 2003. Potential roles of galectins in myeloid differentiation into three different lineages. J. Leukoc. Biol. 73: 650-656.
7. Sturm, A., et al. 2004. Human galectin-2: novel inducer of T cell apoptosis with distinct profile of caspase activation. J. Immunol. 173: 3825-3837.
8. Ozaki, K., et al. 2004. Functional variation in LGALS2 confers risk of myocardial infarction and regulates lymphotoxin-α secretion *in vitro*. Nature 429: 72-75.

CHROMOSOMAL LOCATION

Genetic locus: LGALS2 (human) mapping to 22q13.1.

SOURCE

galectin-2 (C6) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 1-132 of galectin-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

galectin-2 (C6) is recommended for detection of galectin-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-2 siRNA (h): sc-44532, galectin-2 shRNA Plasmid (h): sc-44532-SH and galectin-2 shRNA (h) Lentiviral Particles: sc-44532-V.

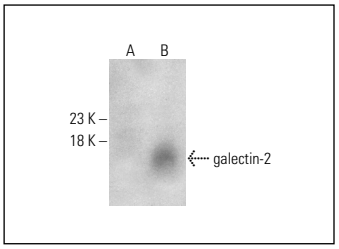
Molecular Weight of galectin-2: 17 kDa.

Positive Controls: galectin-2 (h2): 293T Lysate: sc-116773 or mouse small intestine extract: sc-364252.

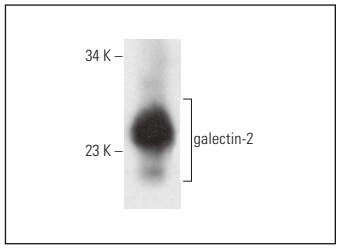
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



galectin-2 (C6): sc-517450. Western blot analysis of galectin-2 expression in non-transfected: sc-117752 (**A**) and human galectin-2 transfected: sc-116773 (**B**) 293T whole cell lysates.



galectin-2 (C6): sc-517450. Western blot analysis of galectin-2 expression in mouse small intestine tissue extract.

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.