

galectin-2 (K-18): sc-31793

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- α (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-alpha secretion *in vitro*. *Nature* 429: 72-75.

CHROMOSOMAL LOCATION

Genetic locus: LGALS2/LGALS1 (human) mapping to 22q13.1; Lgals2/Lgals1 (mouse) mapping to 15 E1.

SOURCE

galectin-2 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of galectin-2 of human origin.

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-31792 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

galectin-2 (K-18) is recommended for detection of galectin-2, and to a lesser extent, galectin-1 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).

galectin-2 (K-18) is also recommended for detection of galectin-2, and to a lesser extent, galectin-1 in additional species, including equine, canine, bovine and porcine.

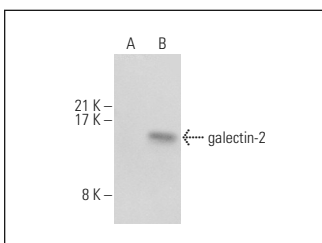
Molecular Weight of galectin-2: 17 kDa.

Positive Controls: galectin-2 (h2): 293T Lysate: sc-116773.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



galectin-2 (K-18): sc-31793. Western blot analysis of galectin-2 expression in non-transfected: sc-117750 (A) and human galectin-2 transfected: sc-116773 (B) whole cell lysates.

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.

PROTOCOLS

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