

# galectin-9 (M-20): sc-19294

## BACKGROUND

Galectins are a family of soluble  $\beta$ -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-9, also known as Ecalectin, Gal-9, hUAT2, HOM-HD-21 or LGALS9, maps to human chromosome 17 and encodes a 36 kDa protein. Galectin-9 is an integral membrane protein that exists as two isoforms, a long form and a short form, which differ by an internal stretch of 32 amino acids. Galectin-9 is an eosinophile chemoattractant produced by activated T lymphocytes that is expressed in organs of the gastrointestinal tract, aorta, liver, kidney, liver, pancreatic islets, lung, tonsil and some colorectal carcinoma, and in the cell lines HUVEC, U-937, HL60, HeLa and Jurkat. Introduction of IL-1 $\beta$  enhances Galectin-9 expression. Increased expression of Galectin-9 induces apoptosis in thymocytes and CD8<sup>+</sup> cells. Galectin-9 is involved in immuno/inflammation processes in potential-sensitive uric acid translocation and contributes to inflammatory reactions in the central nervous system (CNS).

## REFERENCES

- Couraud, P.O., et al. 1989. Molecular cloning, characterization, and expression of a human 14-kDa lectin. *J. Biol. Chem.* 264: 1310-1316.
- Tureci, O., et al. 1997. Molecular definition of a novel human galectin which is immunogenic in patients with Hodgkin's disease. *J. Biol. Chem.* 272: 6416-6422.
- Hirashima, M., 1999. Ecalectin as a T cell-derived eosinophil chemoattractant. *Int. Arch. Allergy Immunol.* 120: 7-10.
- Suk, K., et al. 1999. Natural autoantibody to galectin-9 in normal human sera. *J. Clin. Immunol.* 19: 158-165.
- Online Mendelian Inheritance in Man, OMIM (TM). Johns Hopkins University, Baltimore, MD. MIM Number: 601879: 6/26/2000. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Matsushita, N., et al. 2000. Requirement of divalent galactoside-binding activity of ecalectin/galectin-9 for eosinophil chemoattraction. *J. Biol. Chem.* 275: 8355-8360.
- Shimonishi, T., et al. 2001. Expression of endogenous galectin-1 and galectin-3 in intrahepatic cholangiocarcinoma. *Hum. Pathol.* 32: 302-310.

## SOURCE

galectin-9 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of galectin-9 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-19294 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

galectin-9 (M-20) is recommended for detection of galectin-9 and galectin-5 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2  $\mu$ g per 100–500  $\mu$ 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-9 siRNA (m): sc-35445.

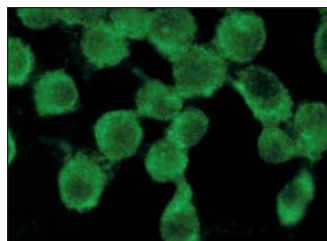
Molecular Weight of galectin-9: 36 kDa.

Positive Controls: mouse spleen extract: sc-2391.

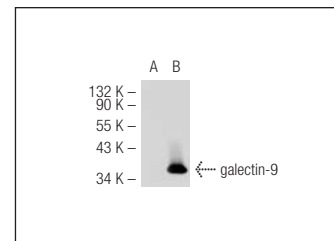
## RECOMMENDED SECONDARY REAGENTS

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-9 (M-20): sc-19294. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.



galectin-9 (M-20): sc-19294. Western blot analysis of galectin-9 expression in non-transfected: sc-117752 (A) and mouse galectin-9 transfected: sc-125369 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Ohtsubo, K., et al. 2005. Dietary and genetic control of glucose transporter 2 glycosylation promotes insulin secretion in suppressing diabetes. *Cell* 123: 1307-1321.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.