

galectin-9 (H-92): sc-366141

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-9, also known as Ecalectin, Gal-9, hUAT2, HOM-HD-21 or LGALS9, maps to human chromosome 17. 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, pancreatic islets, lung, tonsil and some colorectal carcinoma, and in the cell lines HUVEC, U-937, HL60, HeLa and Jurkat. Introduction of IL-1 β enhances Galectin-9 expression. Increased expression of Galectin-9 induces apoptosis in thymocytes and CD8⁺ 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). Galectin-5, also known as RL-18, may function in erythrocyte differentiation.

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™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 601879. 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.

CHROMOSOMAL LOCATION

Genetic locus: LGALS9 (human) mapping to 17q11.2; Lgals9 (mouse) mapping to 11 B5.

SOURCE

galectin-9 (H-92) is a rabbit polyclonal antibody raised against amino acids 264-355 mapping at the C-terminus of galectin-9 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.

APPLICATIONS

galectin-9 (H-92) is recommended for detection of galectin-9 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-9 (H-92) is also recommended for detection of galectin-9 in additional species, including bovine and porcine.

Suitable for use as control antibody for galectin-9 siRNA (h): sc-35444, galectin-9 siRNA (m): sc-35445, galectin-9 shRNA Plasmid (h): sc-35444-SH, galectin-9 shRNA Plasmid (m): sc-35445-SH, galectin-9 shRNA (h) Lentiviral Particles: sc-35444-V and galectin-9 shRNA (m) Lentiviral Particles: sc-35445-V.

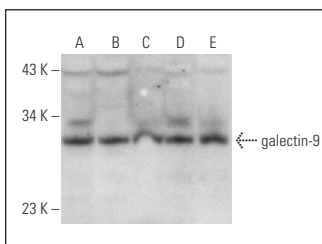
Molecular Weight of galectin-9: 36 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, WiDR cell lysate: sc-24779 or Jurkat whole cell lysate: sc-2204.

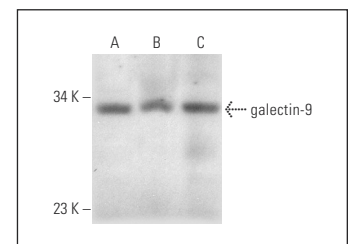
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



galectin-9 (H-92): sc-366141. Western blot analysis of galectin-9 expression in Jurkat (A), HeLa (B), HL-60 (C), THP-1 (D) and U-937 (E) whole cell lysates.



galectin-9 (H-92): sc-366141. Western blot analysis of galectin-9 expression in Hep G2 (A) and WiDR (B) whole cell lysates and mouse spleen tissue extract (C).

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.