

galectin-5 (S-18): sc-31803

BACKGROUND

Galectins are a family of soluble b-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-5, also known as RL-18, exists as a monomer and is predominantly expressed in erythrocytes and may function in erythrocyte differentiation. Galectin-5 is highly homologous to the C-terminal domain of galectin-9. Galectin-9 is an integral membrane protein that exists as two isoforms, a long form and a short form. Galectin-9 is an eosinophile chemoattractant produced by activated T lymphocytes. 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).

REFERENCES

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2. Gitt, M.A., et al. 1995. Sequence and mapping of galectin-5, a β -galactoside-binding lectin, found in rat erythrocytes. *J Biol Chem* 270: 5032-5038.
3. Wada J., et al. 1997. Identification and characterization of galectin-9, a novel β -galactoside-binding mammalian lectin. *J. Biol. Chem.* 272: 6078-86.
4. Wada, J. and Kanwar, Y.S. 1997. Identification and characterization of galectin-9, a novel β -galactoside-binding mammalian lectin. *J. Biol. Chem.* 272: 6078-6086.
5. Jiang W., et al. 1999. Signature sequences for the galectin-4 subfamily. *IUBMB Life* 48: 601-605.
6. Lensch, M., et al. 2006. Unique sequence and expression profiles of rat galectins-5 and -9 as a result of species-specific gene divergence. *Int. J. Biochem. Cell Biol.* 38: 1741-1758.

CHROMOSOMAL LOCATION

Genetic locus: Genetic locus: Lgals5 (rat) mapping to 10q25.

SOURCE

galectin-5 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of galectin-5 of rat 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-31803 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

galectin-5 (S-18) is recommended for detection of galectin-5 of rat 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); cross-reactive with galectin-9 in mouse, rat and to a lesser extent human.

galectin-5 (S-18) is also recommended for detection of galectin-5 and galectin-9 in additional species, including bovine.

Molecular Weight of galectin-5: 18 kDa.

Positive Controls: rat liver extract: sc-2395.

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.

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.



Try **galectin-5 (F-11): sc-48358**, our highly recommended monoclonal alternative to galectin-5 (S-18).