

# galectin-5 (F-11): sc-48358

## 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 $\beta$  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

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. Gitt, M.A., et al. 1995. Sequence and mapping of galectin-5, a  $\beta$ -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  $\beta$ -galactoside-binding mammalian lectin. *J. Biol. Chem.* 272: 6078-6086.
4. Wada, J. and Kanwar, Y.S. 1997. Identification and characterization of galectin-9, a novel  $\beta$ -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.

## SOURCE

galectin-5 (F-11) is a mouse monoclonal antibody raised against amino acids 1-145 representing full length galectin-5 of rat origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

galectin-5 (F-11) is available conjugated to agarose (sc-48358 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48358 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48358 PE), fluorescein (sc-48358 FITC), Alexa Fluor® 488 (sc-48358 AF488), Alexa Fluor® 546 (sc-48358 AF546), Alexa Fluor® 594 (sc-48358 AF594) or Alexa Fluor® 647 (sc-48358 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-48358 AF680) or Alexa Fluor® 790 (sc-48358 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

galectin-5 (F-11) is recommended for detection of galectin-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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); may cross-react with galectin-9.

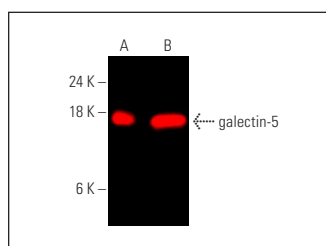
Molecular Weight of galectin-5: 18 kDa.

Positive Controls: rat liver extract: sc-2395 or rat PBL whole cell lysate.

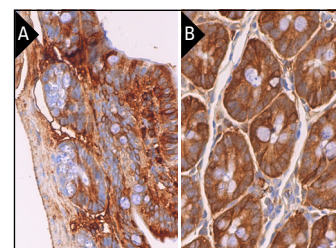
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



galectin-5 (F-11): sc-48358. Near-infrared western blot analysis of galectin-5 expression in rat PBL whole cell lysate (A) and rat liver tissue extract (B). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG $\kappa$  BP-CFL 790: sc-516181.



galectin-5 (F-11): sc-48358. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse small intestine (A) and rat small intestine (B) tissue showing cytoplasmic and membrane staining of glandular cells.

## 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](http://www.scbt.com) for detailed protocols and support products.