

galectin-1 (C-8): sc-166618

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. Specifically, galectin-1 is an autocrine regulator of cell proliferation that plays a role in the maintenance of G_0 and in the control of G_2 traverse. Galectin-1, also known as LGALS1, is the protein product of a single gene linked to human chromosome 22q13.1. The galectin-1 protein contains 135 amino acids, a single internal EcoRI site and a polyadenylation signal. Galectin-1 can localize to both intracellular and extracellular space. Galectin-1 is expressed in human placenta, human lung, HL-6, Hep G2 and CEM cells.

CHROMOSOMAL LOCATION

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

SOURCE

galectin-1 (C-8) is a mouse monoclonal antibody raised against amino acids 1-45 mapping at the N-terminus of galectin-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

galectin-1 (C-8) is available conjugated to agarose (sc-166618 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166618 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166618 PE), fluorescein (sc-166618 FITC), Alexa Fluor® 488 (sc-166618 AF488), Alexa Fluor® 546 (sc-166618 AF546), Alexa Fluor® 594 (sc-166618 AF594) or Alexa Fluor® 647 (sc-166618 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166618 AF680) or Alexa Fluor® 790 (sc-166618 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

galectin-1 (C-8) is recommended for detection of galectin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), 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).

Suitable for use as control antibody for galectin-1 siRNA (h): sc-35441, galectin-1 siRNA (m): sc-37259, galectin-1 shRNA Plasmid (h): sc-35441-SH, galectin-1 shRNA Plasmid (m): sc-37259-SH, galectin-1 shRNA (h) Lentiviral Particles: sc-35441-V and galectin-1 shRNA (m) Lentiviral Particles: sc-37259-V.

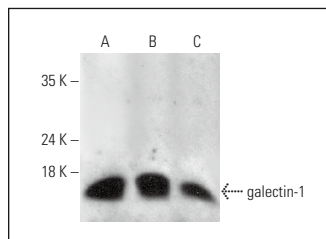
Molecular Weight of galectin-1: 14 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, U-87 MG cell lysate: sc-2411 or HL-60 whole cell lysate: sc-2209.

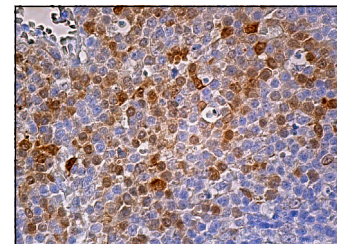
STORAGE

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

DATA



galectin-1 (C-8) HRP: sc-166618 HRP. Direct western blot analysis of galectin-1 expression in HeLa (A), U-87 MG (B) and HL-60 (C) whole cell lysates.



galectin-1 (C-8): sc-166618. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nuclear and cytoplasmic staining of germinal center cells.

SELECT PRODUCT CITATIONS

1. Tang, D., et al. 2012. High expression of galectin-1 in pancreatic stellate cells plays a role in the development and maintenance of an immunosuppressive microenvironment in pancreatic cancer. *Int. J. Cancer* 130: 2337-2348.
2. Fritsch, K., et al. 2016. Galectin-3 interacts with components of the nuclear ribonucleoprotein complex. *BMC Cancer* 16: 502.
3. Fan, X., et al. 2017. Foot-and-mouth disease virus infection suppresses autophagy and NF κ B antiviral responses via degradation of ATG5-ATG12 by 3C^{pro}. *Cell Death Dis.* 8: e2561.
4. Tang, D., et al. 2018. Galectin-1 expression in activated pancreatic satellite cells promotes fibrosis in chronic pancreatitis/pancreatic cancer via the TGF- β 1/Smad pathway. *Oncol. Rep.* 39: 1347-1355.
5. Murányi, J., et al. 2019. Novel crizotinib-GnRH conjugates revealed the significance of lysosomal trapping in GnRH-based drug delivery systems. *Int. J. Mol. Sci.* 20: 5590.
6. Chetry, M., et al. 2020. Effects of galectin-1 on biological behavior in cervical cancer. *J. Cancer* 11: 1584-1595.
7. Lee, J., et al. 2021. Soluble α -klotho anchors TRPV5 to the distal tubular cell membrane independent of FGFR1 by binding TRPV5 and galectin-1 simultaneously. *Am. J. Physiol. Renal Physiol.* 320: F559-F568.
8. Sharma, S., et al. 2022. Use of glycoproteins-prostate-specific membrane antigen and galectin-3 as primary tumor markers and therapeutic targets in the management of metastatic prostate cancer. *Cancers* 14: 2704.
9. Sun, G., et al. 2024. Herpes simplex virus type 1 modifies the protein composition of extracellular vesicles to promote neurite outgrowth and neuroinfection. *mBio* 15: e0330823.

RESEARCH USE

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