

# galectin-1 (E-2): sc-166619

## 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. 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.

## 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. Hirabayashi, J., et al. 1989. Cloning and nucleotide sequence of a full-length cDNA for human 14 kDa  $\beta$ -galactoside-binding lectin. *Biochim. Biophys. Acta* 1008: 85-91.
3. Abbott, W.M., et al. 1989. Evidence that the 14 kDa soluble  $\beta$ -galactoside-binding lectin in man is encoded by a single gene. *Biochem. J.* 259: 291-294.

## CHROMOSOMAL LOCATION

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

## SOURCE

galectin-1 (E-2) 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  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

galectin-1 (E-2) 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  $\mu$ 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).

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.

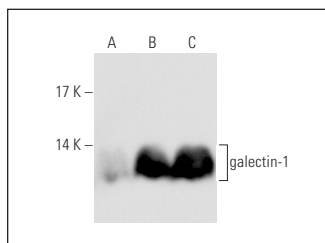
Molecular Weight of galectin-1: 14 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or KNRK whole cell lysate: sc-2214.

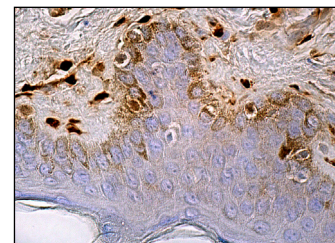
## RECOMMENDED SUPPORT REAGENTS

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-1 (E-2): sc-166619. Western blot analysis of galectin-1 expression in HeLa (A), NIH/3T3 (B) and KNRK (C) whole cell lysates.



galectin-1 (E-2): sc-166619. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing nuclear staining of melanocytes.

## SELECT PRODUCT CITATIONS

1. Brito, L.N.S., et al. 2018. Immunohistochemical analysis of galectins-1, -3, and -7 in periapical granulomas, radicular cysts, and residual radicular cysts. *J. Endod.* 44: 728-733.

## 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.

## CONJUGATES

See **galectin-1 (C-8): sc-166618** for galectin-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.