Galectin-3/LGALS3 Antibody

100 μl(10 western blots)

rev. 07/23/13

For Research Use Only. Not For Use In Diagnostic Procedures.

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Applications	Species Cross-Reactivity*	Molecular Wt.	Source	
W	H, M, R	28 kDa	Rabbit**	
Endogenous				

Background: Galectins are a family of β -galactose binding proteins that are characterized by an affinity for poly-N-acetyllactosamine-enriched glycoconjugates and a carbohydrate-binding site (1,2). Members of the galectin family have been implicated in a variety of biological functions including cell adhesion (3), growth regulation (4), cytokine production (5), T-cell apoptosis (6), and immune responses (7).

Galectin-3/LGALS3 is involved in several diverse biological functions. Galectin-3/LGALS3 binds IgE (8). Galectin-3/ LGALS3 is an unusual protein in that can be found both extracellularly and intracellularly. Intracellularly, galectin-3/ LGALS3 can localize to the cytoplasm, nucleus, or both, depending on cell type and experimental conditions. Nuclear galectin-3/LGALS3 has been identified as a pre-mRNA splicing factor (9). Galectin-3/LGALS3 production has been shown to increase during inflammation and in obesity, and the protein itself can have an inflammatory effect under certain conditions (10). Galectin-3/LGALS3 forms a complex with α 3, β 1 integrin to act as a surface receptor on endothelial cells for the NG2 proteoglycan, which triggers cell motility and angiogenesis (11). In addition to these functions, galectin-3/LGALS3 is also a required factor for the terminal differentiation of epithelial cells (12).

Specificity/Sensitivity: Galectin-3/LGALS3 antibody recognizes endogenous levels of total galectin-3/LGALS3 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human galectin-3/LGALS3 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using Galectin-3/LGALS3 Antibody.

Entrez Gene ID #3958 UniProt ID #P17931

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20° C. *Do not aliquot the antibody.*

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*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting

1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

- (1) Barondes, S.H. et al. (1994) *Cell* 76, 597-8.
- (2) Barondes, S.H. et al. (1994) *J Biol Chem* 269, 20807-10.
- (3) Offner, H. et al. (1990) *J Neuroimmunol* 28, 177-84.

(4) Wells, V. and Mallucci, L. (1991) Cell 64, 91-7.

(5) Filer, A. et al. (2009) Arthritis Rheum 60, 1604-14.

(6) Perillo, N.L. et al. (1995) Nature 378, 736-9.

- (7) Cooper, D.N. et al. (1991) J Cell Biol 115, 1437-48.
- (8) Platzer, B. et al. (2011) Immunol Lett 141, 36-44.
- (9) Haudek, K.C. et al. (2010) *Biochim Biophys Acta* 1800, 181-9.
- (10) Pang, J. et al. (2013) PLoS One 8, e57915.
- (11) Fukushi, J. et al. (2004) Mol Biol Cell 15, 3580-90.
- (12) Hikita, C. et al. (2000) J Cell Biol 151, 1235-46.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

 Applications Key:
 W—Western
 IP—Immunoprecipitation
 IHC—Immunohistochemistry
 ChIP—Chromatin Immunoprecipitation
 IF—Immunofluorescence
 F—Flow cytometry
 E-P—ELISA-Peptide

 Species Cross-Reactivity Key:
 H—human
 M—mouse
 R—rat
 Hm—hamster
 Mk—monkey
 Mi—mink
 C—chicken
 Dm—D. melanogaster
 X—xenopus
 Z—zebrafish
 B—bovine

 Dg—dog
 Pg—pig
 Sc—S. cerevisiae
 Ce—C. elegans
 Hr—horse
 All—all species expected
 Species enclosed in parentheses are predicted to react based on 100% homology.