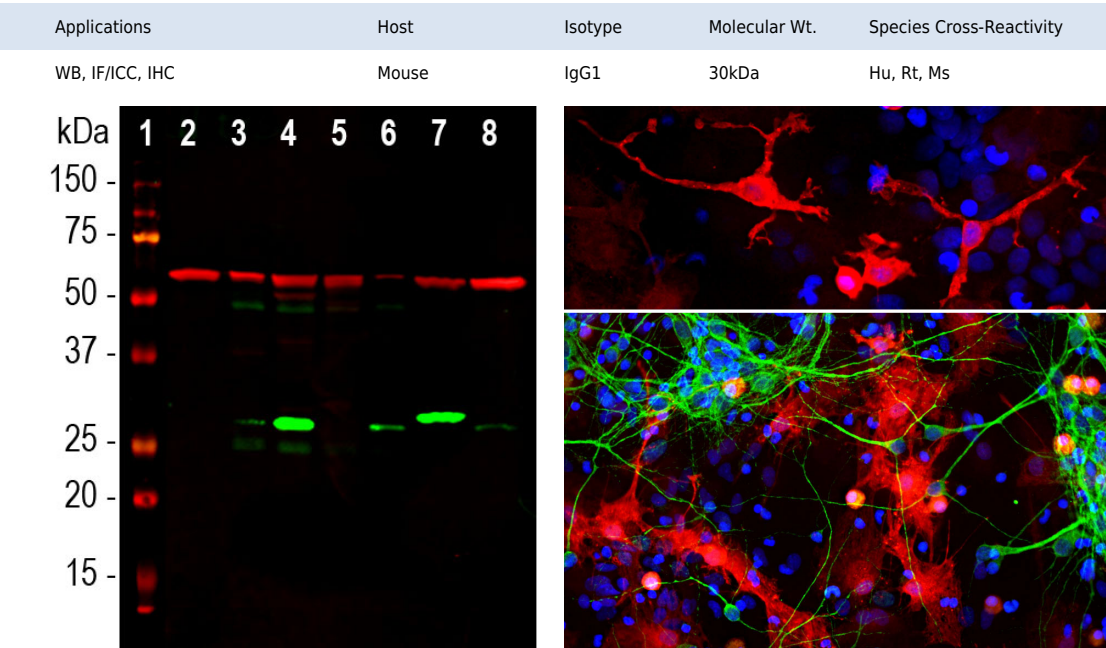


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**HGNC Name:** LGALS3  
**UniProt:** P17931  
**RRID:** AB\_2572283  
**Immunogen:** Full length recombinant human galectin 3 expressed in and purified from *E. coli*.  
**Format:** Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
**Storage:** Store at 4°C for short term, for longer term store at -20°C  
**Recommended dilutions:**  
WB:1:2,000. IF/ICC and IHC: 1:1,000

### References:

1. Dumic J, Dabelic S, Flögel M. Galectin-3: An open-ended story. *Biochim. Biophys. Acta.* 1760:616-35 (2006).
2. Haudek KC, Patterson RJ, Wang JL. SR proteins and galectins: what's in a name? *Glycobiology* 20:1199-207 (2011).
3. Haudek KC, et al. Dynamics of galectin-3 in the nucleus and cytoplasm. *Biochim. Biophys. Acta.* 1800:181-9 (2011).
4. Henderson NC, Sethi T. The regulation of inflammation by galectin-3. *Immunol. Revs.* 230:160-71 (2009).
5. Yang YR, Hsu DK, Liu FT. Expression of galectin-3 modulates T-cell growth and apoptosis. *PNAS* 93:6737-42 (1996).
6. Sharma UC, et al. Galectin-3 marks activated macrophages in failure-prone hypertrophied hearts and contributes to cardiac dysfunction. *Circulation* 110:3121-8 (2004).



Western blot analysis of different tissue and cell lysates using mouse mAb to galectin 3, MCA-5C21, dilution 1:2,000 in green: [1] protein standard (red), [2] mouse brain lysate and rat tissue lysates: [3] brain, [4] liver, [5] heart, [6] kidney, [7] lung and [8] HEK293 cell lysate. The band at about 30kDa mark corresponds to the galectin 3 protein. The same blot was simultaneously probed with chicken pAb to heat shock protein 60 (HSP60), CPCA-HSP60, dilution 1:20,000, in red, which reveals HSP60 protein in all preparations.

Immunofluorescent analysis of cortical neuron-glial cell culture from E20 rat stained with mouse mAb to galectin 3, MCA-5C21, dilution 1:1,000 in red, and costained with chicken pAb to MAP2, CPCA-MAP2, dilution 1:10,000 in green. The blue is Hoechst staining of nuclear DNA. The MCA-5C21 antibody produces strong staining of microglia (top panel), other glial cells (bottom panel) and lymphocytic cells (small round cells), while the CPCA-MAP2 antibody labels dendrites and perikarya of mature neurons.

### Background:

This protein has several names including macrophage galactose-specific lectin or MAC2, galactoside-binding protein or GALBP, or galectin 3 or gal 3. It is a highly conserved molecule about 30kDa in molecular weight. Galectin 3 is a member of a multigene family of 15 vertebrate lectins all of which share one or in some cases two "carbohydrate recognition domains" (CRD) which bind to  $\beta$ -galactoside, a sugar moiety found on many cell surface proteins (1-3). Galectin 3 is unusual in that it also includes, at the N terminus, multiple proline, tyrosine and glycine rich repeats which allow this molecule to oligomerize, so allowing high avidity binding to  $\beta$ -galactoside. Galectin 3 is a multifunctional protein which is expressed extracellularly, on the cell surface, on mitochondria, in the cytoplasm and in the nucleus, and appears to function both in specific carbohydrate binding and in the regulation of mRNA splicing (1,2). Much evidence suggests that Gal-3 has an important role in the regulation of inflammatory responses and fibrogenesis (4), and also, when over-expressed, may inhibit apoptosis (5). Galectin 3 is also overexpressed in hypertrophied failure prone hearts, and evidence suggests that macrophage derived galectin 3 causes ventricular dysfunction and other problems (6).

The MCA-5C21 antibody was made against full length human recombinant galectin 3 expressed in and purified from *E. coli*. The antibody works well for western blotting and for IF, ICC and IHC (see data under "Additional Info" tab). We also market a rabbit polyclonal antibody made against the same human galectin 3 immunogen, [RPCA-GAL3](#).

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### Abbreviation Key:

mAb—Monoclonal Antibody pAb—Polyclonal Antibody WB—Western Blot IF—Immunofluorescence ICC—Immunocytochemistry  
IHC—Immunohistochemistry E—ELISA Hu—Human Mo—Monkey Do—Dog Rt—Rat Ms—Mouse Co—Cow Pi—Pig Ho—Horse Ch—Chicken  
Dr—D. rerio Dm—D. melanogaster Sm—S. mutans Ce—C. elegans Sc—S. cerevisiae Sa—S. aureus Ec—E. coli.