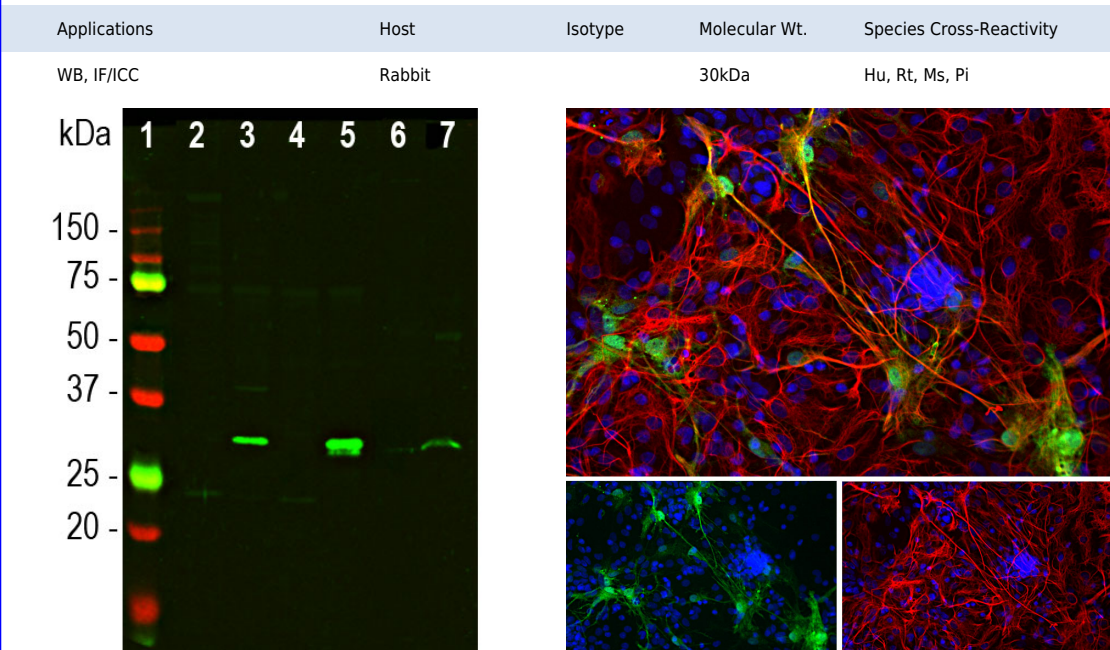


**Ordering Information**  
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 Phone 352-372-7022  
 Fax 352-372-7066

**HGNC Name:** LGALS3  
**UniProt:** P17931  
**RRID:** AB\_2737423  
**Immunogen:** Full length recombinant galectin 3 expressed in and purified from *E. coli*.  
**Format:** Supplied as an aliquot of serum plus 5mM NaH<sub>2</sub>  
**Storage:** Store at 4°C for short term, for longer term store at -20°C + avoid freeze/thaw cycles  
**Recommended dilutions:**  
 WB: 1:5,000. IF/ICC 1:2,000

### 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 rabbit pAb to galectin 3, RPCA-Gal3, dilution 1:5,000 in green: [1] protein standard and mouse tissue lysates: [2] heart, [3] liver, [4] kidney, [5] lung, [6] rat cortical neuron-glial primary cell culture lysate and [7] pig spinal cord lysate. The band at about 30kDa corresponds to the galectin 3 protein.

Immunofluorescent analysis of cortical neuron-glial cell culture from E20 rat stained with rabbit pAb to galectin 3, RPCA-Gal3, dilution 1:2,000 in green, and costained with mouse mAb to GFAP, MCA-5C10 dilution 1:2,000 in red. The blue is Hoechst staining of nuclear DNA. Certain glial cells express only galectin-3 protein, and appear green, while the majority of glial cells and astrocytes produces GFAP protein and so appear red, a few cells that express both protein appear orange-yellow.

### 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 RPCA-Gal3 antibody was made against full length human recombinant galectin 3 expressed in and purified from *E. coli*. We also market a mouse monoclonal antibody made against the same human galectin 3 immunogen, MCA-5C21.

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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.