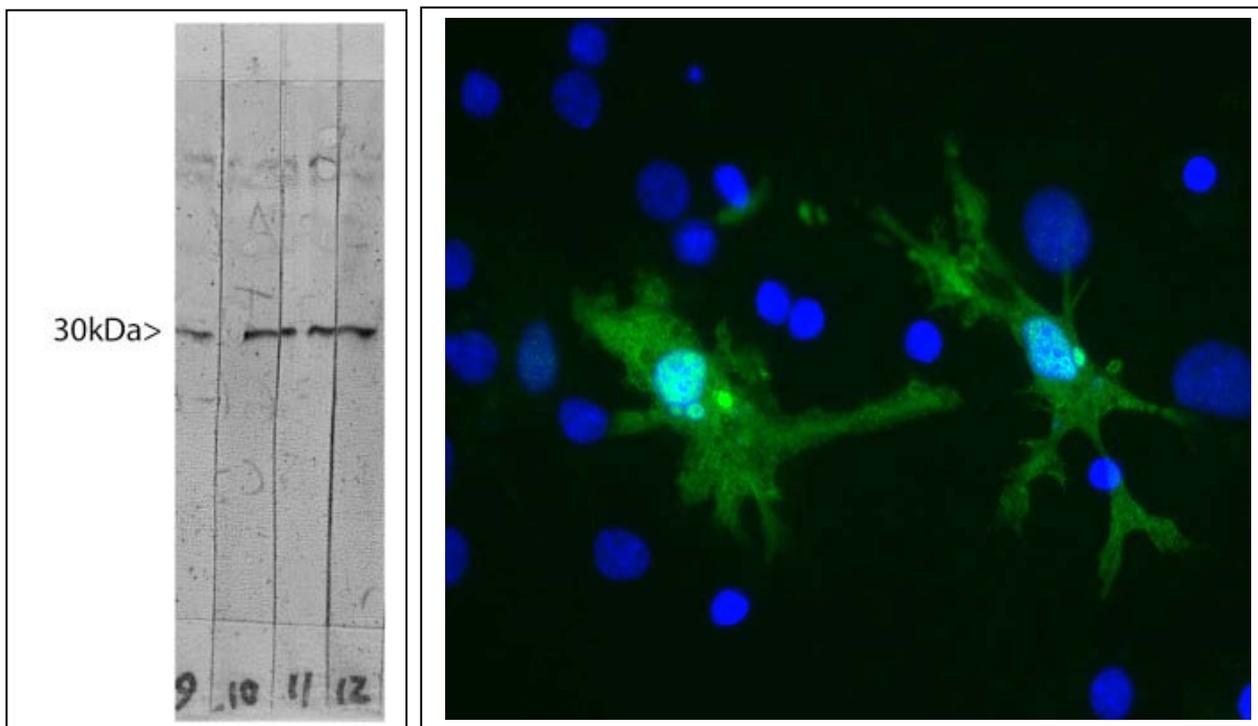


### Catalogue# MCA-5C21: Mouse Monoclonal Antibody to Galectin 3

**The Immunogen:** 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 size. 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  $\beta$ -galactoside a sugar moiety found on many cell surface proteins (1). Gal-3 is unusual in that it also includes, at the N terminus, multiple proline, tyrosine and glycine rich repeats which allows this molecule to oligomerize, so allowing high avidity binding to  $\beta$ -galactoside. Gal-3 It is a multifunctional protein which is expressed both on the cell surface, cytoplasm and nucleus and which 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 (3). The [HGNC](#) name for this protein is [LGALS3](#).



**Left:** blots of crude HeLa cell extract stained with a panel of monoclonal antibodies to Galectin-3. Lane 12 was probed with MCA-5C21, revealing a band at the expected molecular weight of 30kDa.

**Right:** Rat brain neural cultures stained with MCA-5C21 (green) and DNA (blue). Staining can be seen in several types of glia and lymphocytic cells, including these cells which have the morphology of microglia. Most surrounding cells reveal no Galectin-3 staining.

**Antibody characteristics:** MCA-5C21 is a mouse IgG1 class antibody. MCA-5C21 is known to react with Galectin-3 from human, mouse and rat. Since Galectin-3 is highly conserved, it is likely that the antibody is effective on other species also.

**Suggestions for use:** The antibody solution is affinity purified from tissue culture supernatant and is at concentration of 1mg/mL in phosphate buffered saline. The antibody solution can be used at dilutions of at least 1:1,000 in immunofluorescence experiments. In western blotting using chemiluminescence it can be used at dilutions of 1:10,000 or lower. Antibody preparation contains

10mM sodium azide preservative (Link to <http://www.encorbio.com/MSDS/azide.htm> for Material Safety Data Sheet). Avoid repeated freezing and thawing, store at 4°C or -20°C.

**Omim Link:** <http://omim.org/entry/153619>.

**References:**

1. Haudek, K. C., Patterson, R. J., Wang, J. L. SR proteins and galectins: what's in a name? [Glycobiology 20:1199-1207 \(2011\)](#).
2. Haudek, K. C., Spronk, K. J., Voss, P. G., Patterson, R. J., Wang, J. L., Arnoys, E. J. Dynamics of galectin-3 in the nucleus and cytoplasm. [Biochim. Biophys. Acta. 1800:181-189 \(2011\)](#).
3. Henderson, N. C., Sethi, T. The regulation of inflammation by galectin-3. [Immunological Reviews 230:160-171 \(2009\)](#).

**Limitations:** This product is for research use only and is not approved for use in humans or in clinical diagnosis.

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