Galectin-3 (Mac-2): is a β-galactoside-binding lectin belonging to the galectin family of proteins. It is expressed in a variety of tissues and cell types, including eosinophils, mast cells, dendritic cells, kidney cells, and sensory neurons, with the highest levels being found in activated macrophages and the epithelium of the gastrointestinal tract.

Galectin-3 is a promiscuous protein, having extracellular, cytoplasmic or nuclear localization, as well as a concentration-dependent ability to be monomeric or form oligomers. These properties impart great flexibility on galectin-3 as a specific regulator of a wide range of biological processes, including cell adhesion, cell activation and chemotraction, cell growth and differentiation, cell cycle, and apoptosis.

Galectin-3 is seen to play a role in many pathological states, including inflammation and fibrosis, heart disease, atherosclerosis, stroke and cancer. Its expression is upregulated in cases of liver fibrosis, renal fibrosis, and idiopathic pulmonary fibrosis (IPF). Additionally, several studies have shown that elevated levels of galectin-3 in the myocardium are associated with a higher risk of death in individuals with chronic heart failure. Galectin-3 is observed at elevated levels in various types of cancer, and is secreted by both tumor cells and the interacting vascular endothelial cells. It modulates a diverse set of functions, such as cell growth, adhesion, migration, invasion, angiogenesis, immune function, apoptosis and endocytosis, all of these processes are important for tumor progression and metastasis. Due to the role of galectin-3 in various pathological states, it is increasingly being investigated as a potential diagnostic marker and therapeutic target.

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**Selected References for Anti-Galectin-3 (M3/38):**


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**Legend for Applications:**

- **C**: Cryostat Sections
- **E**: ELISA
- **F**: Flow Cytometry
- **IF**: Immunofluorescence
- **P**: Paraffin-Embedded Sections
- **WB**: Western Blotting