

## Recombinant Human Galectin-3

#R00566

Size: 10 µg/100 µg/500 µg

### Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
  - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
  - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



**Warning:** This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

### Background

Human Galectin-3 also named AGE-R3, CBP35, GAL3, L29, LGALS3, Mac-2, is belonging to the galectins family and it is encoded by a single gene, LGALS3, located on chromosome 14, locus q21–q22. It is expressed in the nucleus, cytoplasm, mitochondrion, cell surface, and extracellular space. Galectin-3 is approximately 30 kDa and, like all galectins, contains a carbohydrate-recognition-binding domain (CRD) of about 130 amino acids that enable the specific binding of β-galactosides. Given Galectin-3’s broad biological functionality, it has been demonstrated to be involved in cancer, inflammation and fibrosis, heart disease, and stroke. Studies have also shown that the expression of galectin-3 is implicated in a variety of processes associated with heart failure, including myofibroblast proliferation, fibrogenesis, tissue repair, inflammation, and Ventricular remodeling. Human Galectin-3 shares 79% amino acid sequence identity with rat and mouse

Galectin-3, respectively.

### AA Sequence

ADNFSLHDALSGSGNPNPQGWPAGWGNQPAGAGG  
YPGASYPGAYPGQAPPGAYPGQAPPGAYPGAPGAY  
PGAPAPGVYPGPPSGPGAYPSSGQPSATGAYPATGP  
YGAPAGPLIVPYNLPLPGGVVPRMLITILGTVKPNANR  
IALDFQRGNDVAFHFNPRFNENRRRVIVCNTKLDNN  
WGREERQSVFPFESGKPFKIQVLVEPDHFKVAVNDA  
HLLQYNHRVKKLNEISKLGISGDIDLTASASYTMI

### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

### Product Specification

|                     |                                                                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Synonyms            | AGE-R3, CBP35, GAL3, L29, LGALS3, Mac-2                                                                                                                            |
| Accession           | P17931                                                                                                                                                             |
| GeneID              | 3958                                                                                                                                                               |
| Species             | Human                                                                                                                                                              |
| Source              | Escherichia coli.                                                                                                                                                  |
| Molecular Weight    | Approximately 26.0 kDa, a single non-glycosylated polypeptide chain containing 249 amino acids.                                                                    |
| Purity              | > 98 % by SDS-PAGE and HPLC analyses.                                                                                                                              |
| Biological Activity | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by its ability to agglutinate human red blood cells is less than 10 µg/ml. |
| Physical            | Sterile Filtered White Lyophilized                                                                                                                                 |

|                    |                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------|
| <b>Appearance</b>  | (freeze-dried) powder.                                                                                |
| <b>Formulation</b> | Lyophilized from a 0.2 μm filtered solution in 1×PBS, 5% Trehalose, 0.02% Tween-20, 3mM β-ME, pH 7.4. |
| <b>Endotoxin</b>   | Less than 0.1 EU/μg of rHuGalectin-3 as determined by LAL method.                                     |