

BACKGROUND

Galectin-3 belongs to a large family of carbohydrate-binding proteins called lectins. Galectin-3 is expressed by a wide range of cell types including activated T-cells, tumor cells, macrophages, osteoclasts, fibroblasts and epithelial cells and interacts with β -galactoside sugar moieties. Galectin-3 is associated with cancer, heart failure, stroke and inflammation. Human and mouse Galectin-3 share an 80% homology by amino acid sequence.

Recombinant human Galectin-3 is a non-glycosylated protein, consisting of 250 amino acids with a molecular weight of 26 kDa.

Alternative Names:

Galactose-specific lectin-3, IgE-binding protein, MAC2, L-29 CPB-35

Amino Acid Sequence:

ADNFSLHDAL SGSGNPNPQG WPGAWGNQPA GAGGYPGASY
PGAYPGQAPP GAYPGQAPPG AYHGAPGAYP GAPAPGVYYP
PPSGPGAYPS SQQPSAPGAY PATGPYGAPA GPLIVPYNLP
LPGGVVPRML ITILGTVKPN ANRIALDFQR GNDVAFHFNP
RFNENRRRVI VCNTKLDNNW GREERQSVFP FESGKPFKIQ
VLVEPDHFKV AVNDAHLLQY NHRVKKLNEI SKLGISGDID
LTSASYTMI

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

Recombinant human Galectin-3 is lyophilized from 10 mM Na₂PO₄, pH 7.5 + 50 mM NaCl at a concentration of 1 mg/ml.

Stability:

Lyophilized human Galectin-3 should be stored desiccated below -18°C. Upon reconstitution the product should be aliquoted and stored at below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Reconstitution:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:

Activity is determined by the ability to induce chemotaxis of human blood monocytes at concentrations ranging from 2-220 ug/mL.

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

