

## Recombinant Human Galectin-3 (rHuGalectin-3)

## **ChemWhat Technical Data Sheet (TDS)**

Catalog Number:

603-03

Source:

Escherichia coli.

Molecular Weight:

Approximately 26.0 kDa, a single non-glycosylated polypeptide chain containing 249 amino acids.

Quantity:

 $10 \mu g / 50 \mu g / 1000 \mu g$ 

AA Sequence:

ADNFSLHDAL SGSGNPNPQG WPGAWGNQPA GAGGYPGASY PGAYPGQAPP GAYPGQAPPG AYPGAPGAYP GAPAPGVYPG PPSGPGAYPS SGQPSATGAY PATGPYGAPA GPLIVPYNLP LPGGVVPRML ITILGTVKPN ANRIALDFQR GNDVAFHFNP RFNENNRRVI VCNTKLDNNW GREERQSVFP FESGKPFKIQ VLVEPDHFKV AVNDAHLLOY NHRVKKLNEI SKLGISGDID LTSASYTMI

**Purity:** 

> 98 % by SDS-PAGE and HPLC analyses.

**Biological Activity:** 

Fully biologically active when compared to standard. The ED50 as determined by its ability to

agglutinate human red blood cells is less than 10 µg/ml.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2  $\mu m$  filtered solution in 1  $\times$  PBS, pH 7.4, 3mM DTT.

Endotoxin:

Less than 0.1 EU/µg of rHuGalectin-3 as determined by LAL method.

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  $\leq$  -20  $\mathbb C$ . Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

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.

Usage:

ChemWhat Limited in UK offers this branded product for research, development or further

evaluation purposes. NOT FOR HUMAN USE.

## Human Galectin-3

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.

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