



Galectin-3 (LGALS3), human recombinant (rHULGALS3)

Catalog No: 08555
Lot No: XXXXX
Source: *E. coli*
Synonyms: Galectin-3, GAL3, MAC2, CBP35, GALB, GALIG, LGALS2, LGALS3, Galactose-specific lectin 3, Mac-2 antigen, IgE-binding protein, 35 kDa lectin, Carbohydrate-binding protein 35, CBP 35, Laminin-binding protein, Lectin L-29, L-31, Galactoside-binding protein

Background

Galectin-3 mediates with the alpha-3, beta-1 integrin the stimulation by cspg4 of endothelial cells migration. Galectin-3 plays an necessary part during the acquisition of vasculogenic mimicry and angiogenic properties associated with melanoma progression. LGALS3 overexpression is highly expressed in early stages of papillary carcinoma, and its expression intensity declines during tumor progression. Serum levels of LGALS3 are high in patients with thyroid malignancy but there is considerable overlap in serum LGALS3 concentrations between those with benign and malignant nodular thyroid disease. LGLAS3 takes part as an immune regulator to inhibit T-cell immune responses and promote tumor growth, as a result providing a new mechanism for tumor immune tolerance.

Description

LGALS3 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 250 amino acids and having a molecular mass of 26 kDa. LGALS3 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The Galectin-3 protein was lyophilized from a concentrated (1 mg/ml) containing 10 mM sodium phosphate buffer, pH 7.5 and 50 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized LGALS3 in sterile 18 M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Galectin-3, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Galectin-3 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

ADNFSLHDAL SGSGNPNPQG WPGAAGNQPA GAGGYPGASY PGAYPGQAPP GAYPGQAPP AYHGAPGAYP GAPAPGVYYPG
PPSGPGAYPS SGQPSAPGAY PATGPYGAPA GPLIVPYNLP LPGGVVPRML ITILGTVKPN ANRIALDFQR GNDVAFHFNP
RFNENNRVVI VCNTKLDNNW GREERQSVFP FESGKPFKIQ VLVEPDHFVKV AVNDAHLLQY NHRVKLLNEI SKLGISGDID
LTSASYTMI

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Activity

Determined by its ability to chemoattract human blood monocytes. Chemotactic activity was observed at a concentration of 2 µg/ml with a peak response obtained at 220 µg/ml.

Usage

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