



Galectin-1, His Tag, recombinant mouse (rmLGALS1-His)

Catalog No: 97605
Lot No: XXXXX
Source: *E. coli*
Synonyms: Galectin-1, Gal-1, 14 kDa lectin, Beta-galactoside-binding lectin L-14-I, Galaptin, Lactose-binding lectin 1, Lectin galactoside-binding soluble 1, S-Lac lectin 1, Lgals1, Gbp, L14, Galbp, L-14.5, Lect14, AA410090

Background

The galectins are a family of beta-galactoside-binding proteins implicated in modulating cell-cell and cell-matrix interactions. Galectin-1 is an autocrine negative growth factor that regulates cell proliferation. Galectin-1 regulates cell apoptosis and cell differentiation. Galectin-1 binds CD45, CD3 and CD4 & inhibits CD45 protein phosphatase activity and therefore the dephosphorylation of lyn kinase. Galectin-1 and its ligands are one of the master regulators of immune responses as T-cell homeostasis and survival, T-cell immune disorders, inflammation and allergies as well as host-pathogen interactions. Galectin-1 expression or overexpression in tumors and/or the tissue surrounding them must be considered as a sign of the malignant tumor progression that is often related to the long-range dissemination of tumoral cells (metastasis), to their dissemination into the surrounding normal tissue, and to tumor immune-escape. Galectin-1 in its oxidized form plays a number of important roles in the regeneration of the central nervous system after injury. The targeted overexpression (or delivery) of Galectin-1 should be considered as a method of choice for the treatment of some kinds of inflammation-related diseases, neurodegenerative pathologies and muscular dystrophies. In contrast, the targeted inhibition of Galectin-1 expression is what should be developed for therapeutic applications against cancer progression. Galectin-1 is thus a promising molecular target for the development of new and original therapeutic tools. There is 88% homology between the human and mouse galectin-1.

Description

LGALS1 mouse recombinant produced *E. coli* is a single polypeptide chain containing 159 amino acids (1-135) and having a molecular mass of 17 kDa. LGALS1 is fused to a 24 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Formulation

The LGALS1 solution (1 mg/ml) contains 20 mM Tris-HCl buffer (pH 8.0), 0.15 M NaCl and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

MGSSHHHHHH SSSLVPRGSH MGSHTACGLV ASNLNLKPG E CLKV RGEVAS DAKSFVLNLG KDSNNLCLHF NPRFNAHGDA
NTIVCNTKED GTWGTEHREP AFPPQPGSIT EVCITFDQAD LTIKLPDGH E FKFPNRLNME AINYMAADGD FKIKCVAFE

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