
Product Data Sheet

Product Name: LGALS1 Mouse
 Cat. No.: GP20278
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
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.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSHTMACGLV ASNLNLKPGE CLKVRGEVAS DAKSFVLNLG KDSNNLCLHF NPRFNAHGDA NTIVCNTKED GTWGTTEHREP AFPFQPGSIT EVCITFDQAD LTIKLPDGHE FKFPNRLNME AINYMAADGD FKIKCVAFE.		
Formulation	The LGALS1 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl and 10% glycerol.		

Introduction

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

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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.

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.

Background

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

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