

Galectin-3 Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG10155010	(10 µg)
Species: Human	RBG10155050	(50 µg)
Other names: Galactose specific lectin 3, Mac-2 antigen, 35 kDa lectin, Carbohydrate binding protein 35, Laminin binding protein	RBG10155100	(100 µg)

Description

Lectins, of either plant or animal origin, are carbohydrate-binding proteins that interact with glycoproteins and glycolipids on the surface of animal cells. The Galectins are lectins that recognize and interact with beta-galactoside moieties. Galectin-3 regulates a number of biological processes, including embryogenesis, inflammatory responses, cell progression and metastasis. Galectin-3 is normally expressed in epithelia of a variety of tissues, including colon and endometrium, and in various inflammatory cells, including macrophages. Galectin-3 can function intracellularly, controlling the cell cycle and preventing T-cell apoptosis, and also extracellularly, by activating various cells, including monocytes/macrophages, mast cells, neutrophils, and lymphocytes. Expression of Galectin-3 is affected by neoplastic transformation, being up-regulated in certain types of lymphomas, and in thyroid and hepatic carcinomas. Conversely, it is down-regulated in other cancers such as colon, breast, ovarian, and uterine. Recombinant Human Galectin-3 is a globular 26.0 kDa protein containing 250 amino acid residues, but no disulfide bonds.

Introduction to the Molecule

Galectin-3 (26 kDa) is a b-galactoside-binding protein belonging to the Galectin family. Galectin-3 is normally found in epithelia of many organs and various inflammatory cells, including macrophages as well as dendritic cells and Kupfer cells. Galectin-3 has been shown to mediate cell-cell and cell-extracellular matrix interactions, and it acts as a novel chemoattractant for monocytes and macrophages.

Research topic

Immune Response, Infection and Inflammation

Amino Acid Sequence

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ADNFSLHDAL SSGNPNPQG WPGAWGNQPA GAGGYPGASY PGAYPGQAPP GAYPGQAPP AYHGAPGAYP GAPAPGVYYPG
PPSGPGAYPS SGQPSAPGAY PATGPGYAPA GPLIVPYNLP LPGGVVRML ITILGTVKPN ANRIALDFQR GNDVAFHFNP
RFNENNRVVI VCNTKLDNNW GREERQSVFP FESGKPFKIQ VLVEPDHFKV AVNDAHLLQY NHRVKKLNEI SKLGISGDID
LTSASYTMI
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Source

E. coli

Purity

98%

Biological Activity

Determined by its ability to chemoattract human blood monocytes. Chemotactic activity was observed at a concentration of 2.5µg/ml with a peak response obtained at 250µg/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C

Storage, Stability/Shelf Life

-20°C

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