

Cytokines

Human Recombinant Galectin-1

Galectin-1



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Catalog #100-0941
100-0942

100 µg
1000 µg

Product Description

Galectin-1 (Gal1) was the first characterized member of the galectin family of galactosidase-binding proteins, with over 15 mammalian galectins identified (Camby et al.; Salatino et al.). Gal1 comes in two forms: the oxidized monomer that acts as a cytokine, and the reduced dimer that acts as a lectin (Gaudet et al.). This product is in the dimer form. This cytokine is expressed in many tissues and has an immunosuppressive role in affecting T cell homeostasis by various mechanisms such as regulating apoptosis, cytokine secretion, cell adhesion, cell proliferation, and other effects (Camby et al.; Garin et al.; Gaudet et al.; Salatino et al.). In addition, Gal1 is thought to also play a role in axonal regeneration after injuries (Camby et al.; Garin et al.; Gaudet et al.; Salatino et al.). There are several therapeutic applications suggested for Gal1; overexpression has been suggested as a therapy for autoimmune and inflammatory diseases and enhancing axonal regeneration in injured nerves (Camby et al.; Gaudet et al.). In contrast, inhibition of Gal1 has been suggested to prevent tumor metastasis and cancer progression, as it may aid in cell adhesion, migration, and immune escape of cancer cells (Camby et al.).

Product Information

Alternative Names: 14 kDa laminin-binding protein, 14 kDa lectin, Beta-galactoside-binding lectin L-14-I, GAL1, Galactose-specific lectin-1, Galaptin, LGALS1, S-LAC lectin-1

Accession Number: NP_002296.1 (Ala2-Asp135)

Amino Acid Sequence: ACGLVASNLN LKPGECLRVR GEVAPDAKSF VLNLGKDSNN LCLHFNPRFN AHGDANTIVC NSKDGGAWGT EQREAVFPFQ PGSVAEVCIT FDQANLTVKL PDGYEFKFPN RLNLEAINYM AADGDFKIKC VAFD

Predicted Molecular Mass: 15 kDa

Species: Human

Formulation: Lyophilized from sterile PBS, pH 7.4. Trehalose (5% - 8%), mannitol, and 0.01% TWEEN® 80 are normally added as protectants before lyophilization.

Source: *E. coli*

Specifications

Activity: Not available.

Purity: ≥ 95%

Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1.0 EU/µg protein.

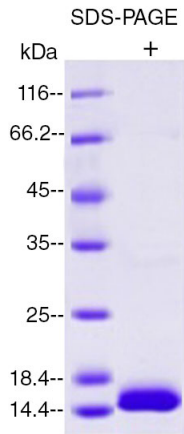
Preparation and Storage

Storage: Store at -20°C to -80°C.

Stability: Stable as supplied for 12 months from date of receipt.

Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



Human Recombinant Galectin-1 was resolved with SDS-PAGE under reducing (+) conditions and visualized by Coomassie Blue staining. Human Recombinant Galectin-1 monomer has a predicted molecular mass of 15 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

- Camby I et al. (2006) Galectin-1: A small protein with major functions. *Glycobiology* 16(11).
- Garín MI et al. (2007) Galectin-1: A key effector of regulation mediated by CD4 +CD25+ T cells. *Blood* 109(5): 2058–65.
- Gaudet A et al. (2005) Expression and functions of Galectin-1 in sensory and motoneurons. *Curr Drug Targets* 6(4): 419–25.
- Salatino M et al. (2008) Galectin-1 as a potential therapeutic target in autoimmune disorders and cancer. *Expert Opin Biol Ther* 8(1): 45–57.

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