

DESCRIPTION

Source *E. coli*-derived
Met1-Glu132
Accession # P05162

N-terminal Sequence Analysis Met1 & Thr2

Predicted Molecular Mass 14 kDa

SPECIFICATIONS

SDS-PAGE 14 kDa, reducing conditions

Activity Measured by its ability to agglutinate human red blood cells. Hadari, Y.R. *et al.* (2000) *J. Cell Sci.* **113**:2385.
The ED₅₀ for this effect is 5-25 µg/mL.

Endotoxin Level <1.0 EU per 1 µg of the protein by the LAL method.

Purity >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS and Betamercaptoethanol with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 200 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The galectins constitute a large family of carbohydrate-binding proteins with specificity for N-acetyl-lactosamine-containing glycoproteins. At least 14 mammalian galectins, which share structural similarities in their carbohydrate recognition domains (CRD), have been identified to date. The galectins have been classified into the prototype galectins (-1, -2, -5, -7, -10, -11, -13, -14), which contain one CRD and exist either as a monomer or a noncovalent homodimer; the chimera galectins (galectin-3) containing one CRD linked to a nonlectin domain; and the tandem-repeat galectins (-4, -6, -8, -9, -12) consisting of two CRDs joined by a linker peptide. Galectins lack a classical signal peptide and can be localized to the cytosolic compartments where they have intracellular functions. However, via one or more as yet unidentified non-classical secretory pathways, galectins can also be secreted to function extracellularly. Individual members of the galectin family have different tissue distribution profiles and exhibit subtle differences in their carbohydrate-binding specificities. Each family member may preferentially bind to a unique subset of cell-surface glycoproteins (1-4).

Galectin-2 is a monomeric or homodimeric prototype galectin that is expressed in hepatoma, stomach epithelial cells and in colorectal and neural tumors. The functions of Galectin-2 has not been reported. Human and mouse Galectin-2 share approximately 65% amino acid sequence similarity (1-4).

References:

1. Rabinovich, A. *et al.* (2002) *Trends in Immunol.* **23**:313.
2. Rabinovich, A. *et al.* (2002) *J. Leukocyte Biology* **71**:741.
3. Hughes, R.C. (2001) *Biochimie* **83**:667.
4. R&D Systems Cytokine Bulletin, Summer, 2002.