

RPES8219

Product Information

Product SKU:	RPES8219	Expression Host:	E.coli	Size:	20µg
Tag:	N-Gst	Reactivity:	Rat	Accession:	P11762

Additional Information

Calculated MW:	40.7 kDa	Observed MW:	45 kDa
Sequence:	Ala2-Glu135		

Protein Information

Background: Galectin-1 (Gal-1, GAL1), is a member of the galectins, a family of animal lectins ranging from *Caenorhabditis elegans* to humans, which is defined by their affinity for beta-galactosides and by significant sequence similarity in the carbohydrate-binding site. It is a homodimer with an a subunit molecular mass of 14.5 kDa, which contains six cysteine residues per subunit. The cysteine residues should be in a free state to maintain a molecular structure that is capable of showing lectin activity. This endogenous lectin widely expressed at sites of inflammation and tumor growth has been postulated as an attractive immunosuppressive agent to restore immune cell tolerance and homeostasis in autoimmune and inflammatory settings. On the other hand, galectin-1 contributes to different steps of tumor progression including cell adhesion, migration, and tumor-immune escape, suggesting that blockade of galectin-1 might result in therapeutic benefits in cancer. Several potential glycoprotein ligands for galectin-1 have been identified, including lysosome-associated membrane glycoproteins and fibronectin, laminin, as well as T-cell glycoproteins CD43 and CD45. Evidence points to Gal-1 and its ligands as one of the master regulators of such immune responses as T-cell homeostasis and survival, T-cell immune disorders, inflammation, and allergies as well as host-pathogen interactions.

Synonyms: LGALS1, GBP, Lectin, Galactoside-Binding Soluble 1,

Endotoxin:	< 10 EU/mg of the protein as determined by the LAL method
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Purity:	> 90% as determined by reducing SDS-PAGE.
Bio-Activity:	Not validated for activity
Storage:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.