

Galectin-1/LGALS1 Protein, Rat

Cat. No.:	HY-P74130
Synonyms:	Galectin-1; Gal-1; HLBP14; Galaptin; HBL; LGALS1
Species:	Rat
Source:	E. coli
Accession:	P11762 (A2-E135)
Gene ID:	56646
Molecular Weight:	Approximately 13 kDa

PROPERTIES

AA Sequence	<p>A C G L V A S N L N L K P G E C L K V R G E L A P D A K S F V L N L G K D S N N</p> <p>L C L H F N P R F N A H G D A N T I V C N S K D D G T W G T E Q R E T A F P F Q</p> <p>P G S I T E V C I T F D Q A D L T I K L P D G H E F K F P N R L N M E A I N Y M</p> <p>A A D G D F K I K C V A F E</p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>Galectin-1/LGALS1 Protein is a lectin with a high affinity for binding beta-galactoside and a diverse range of complex carbohydrates. This protein serves a crucial role in the regulation of apoptosis, cell proliferation, and cell differentiation. Notably, it inhibits the activity of CD45 protein phosphatase, leading to the prevention of Lyn kinase dephosphorylation. Galectin-1/LGALS1 is a potent inducer of T-cell apoptosis. Existing as a homodimer, it forms interactions with various proteins, including CD2, CD3, CD4, CD6, CD7, CD43, ALCAM, and CD45. Additionally, Galectin-1/LGALS1 interacts with laminin through poly-N-acetyllactosamine binding and associates with SUSD2. Furthermore, it engages in a notable interaction with the cargo receptor TMED10, facilitating translocation from the cytoplasm into the endoplasmic reticulum-Golgi intermediate compartment (ERGIC) and subsequent secretion.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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