



Recombinant Protein Technical Manual

**Recombinant Human Galectin-3/LGALS3 Protein
(Active)**
RPES4654

Product Data:

Product SKU: RPES4654

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P17931

Protein Information:

Molecular Mass: 26.0 kDa

AP Molecular Mass: 30 kDa

Tag:

Bio-activity: Measured by its ability to agglutinate human red blood cells.

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, 2mM DTT, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Galectin-3; Gal-3; 35 kDa Lectin; Carbohydrate-Binding Protein 35; CBP35; Galactose-Specific Lectin 3; Galactoside-Binding Protein; GALBP; IgE-Binding Protein; L-31; Laminin-Binding Protein; Lectin L-29; Mac-2 Antigen; LGALS3; MAC2; P35; GAL3; GALBP; GALIG; L31; LGALS2; MAC2

Immunogen Information:

Sequence: Ala2-Ile250

Background:

The Galectin family of proteins consists of beta-galactoside binding lectins containing homologous carbohydrate recognition domains (CRDs). They also possess hemagglutination activity, which is attributable to their bivalent carbohydrate binding properties. Galectins are active both intracellularly and extracellularly. They have diverse effects on many cellular functions including adhesion, migration, polarity, chemotaxis, proliferation, apoptosis, and differentiation. Galectins may therefore play a key role in many pathological states, including autoimmune diseases, allergic reactions, inflammation, tumor cell metastasis, atherosclerosis, and diabetic complications. 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 (Galectin3) 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 nonclassical 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.