



# Recombinant Protein Technical Manual

## Recombinant Rat Galectin-8/LGALS8 Protein (GST Tag)(Active)

RPES0252

### Product Data:

**Product SKU:** RPES0252

**Size:** 50µg

**Species:** Rat

**Expression host:** E. coli

**Uniprot:** NP\_446314.2

### Protein Information:

**Molecular Mass:** 63.2 kDa

**AP Molecular Mass:** 55 kDa

**Tag:** N-GST

**Bio-activity:** Measured by its ability to agglutinate human red blood cells. The ED50 for this effect is typically 0.05-0.3 µg/mL.

**Purity:** > 90 % as determined by SDS-PAGE

**Endotoxin:** Please contact us for more information.

**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 sterile PBS, 10% glycerol, 1mM DTT, pH 8.0

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

**Application:**

**Synonyms:** 30 kDa S-type lectin;RL-30;gal-8;galectin-8;lectin;galactose binding;soluble 8

## Immunogen Information:

**Sequence:** Met 1-Trp 316

## Background:

The Galectin family of proteins, with specificity for N-acetylglucosamine-containing glycoproteins, 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. Although they are localized primarily in the cytoplasm and lack a classical signal peptide, galectins can also be secreted by one or more unidentified, non-classical, secretory pathways. 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 tandemrepeat 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.