

Active Galectin 3 (GAL3) Instruction Manual

SBPA111Ra01

Rattus norvegicus (Rat)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

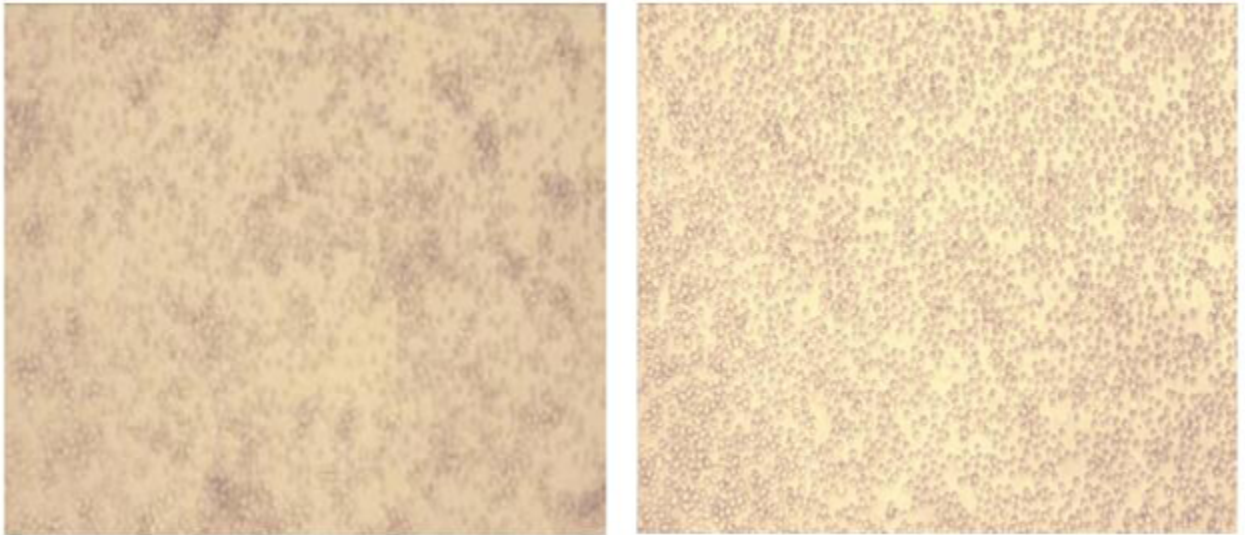
> 90%

Isoelectric Point

8.6

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

Galectin 3 (GAL3) is a member of the lectin family, of which 14 mammalian galectins have been identified. It is also a member of the beta-galactoside-binding protein family that plays an important role in cell-cell adhesion, cell-matrix interactions, macrophage activation, angiogenesis, metastasis, apoptosis. The protein also has been demonstrated to be involved in cancer, inflammation and fibrosis, heart disease, and stroke. GAL3 is expressed in the nucleus, cytoplasm, mitochondrion, cell surface, and extracellular space. It also can agglutinate red blood. In this case, we choose rabbit erythrocyte (RaE) to assay its ability of agglutination. A general procedure for hemagglutination assay (HA) is as follows, two-fold dilute the recombinant rat GAL3 with 0.01M PBS (pH7.4), add 50 μ L a serial dilution of GAL3 to each well of a U or V-bottom shaped 96-well

microtiter plate. The final well serves as a negative control with no GAL3, replace with 50 μ L 0.01M PBS. Then add 50 μ L 1% RaE to each well and mixed gently. The plate is incubated for 1-2 hours at room temperature. The results are shown in Figure 1. The minimal effective concentration of GAL3 is 2.5 μ g/mL. (A) 1% RaE treated with 2.5 μ g/mL GAL3 for 2h; (B) Negative control without GAL3.
Figure. The hemagglutination activity of recombinant rat GAL3.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8 $^{\circ}$ C for one month. Aliquot and store at -80 $^{\circ}$ C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 $^{\circ}$ C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

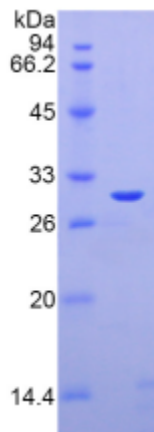


Figure. SDS-PAGE

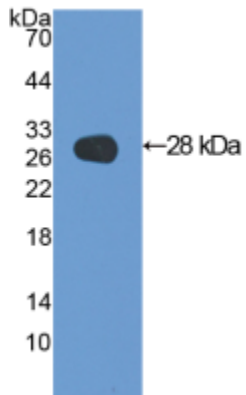


Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.