

Active Galectin 7 (GAL7) Instruction Manual

SBPA112Ra01

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

> 95%

Isoelectric Point

6.6

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

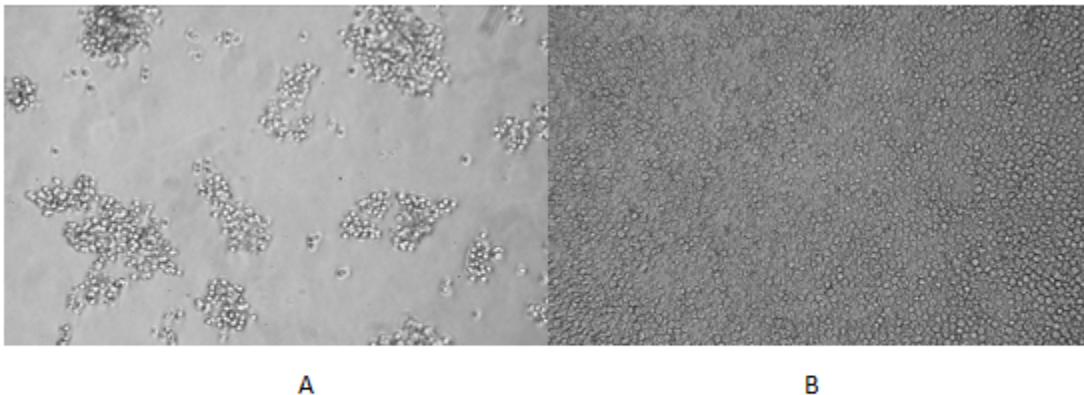


Figure 1. The hemagglutination of recombinant Ra GAL7

(A) Rabbit erythrocyte agglutinated by recombinant rat GAL7;

(B) Rabbit erythrocyte without recombinant rat GAL7.

The galectins constitute a large family of carbohydrate-binding proteins with specificity for N-acetyl-lactosamine-containing glycoproteins. At least 14 mammalian galectins, which share structural similarities in their carbohydrate recognition domains (CRD), have been identified. 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 (Galectin-3) 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. Galectin-7 may also be involved in cell-cell and cell-matrix interactions and exogenous galectin has been found to accelerate the re-epithelialization of wounds

It can agglutinate red blood. In this case, we chose rabbit erythrocyte (RaE) to assay its ability of agglutination. A general procedure for hemagglutination assay (or

haemagglutination assay; HA) is as follows, two-fold dilute the recombinant Ra GAL7 with 0.9% sodium chloride injection, add 50 μ L a serial dilution of GAL7 to each well of a U or V-bottom shaped 96-well microtiter plate. The final well serves as a negative control with no GAL7, replace with 50 μ L 0.9% sodium chloride injection. Then add 50 μ L 1% rabbit erythrocyte to each well and mixed gently. The plate is incubated for 3 hours at room temperature. The results are shown in Figure 1. It was obvious that the minimal effective concentration of GAL7 is 25 μ g/mL.

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

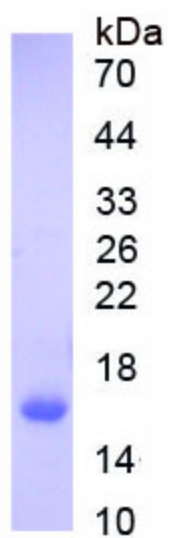


Figure. SDS-PAGE

[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.