

APA307Hu01 100µg

Active Galectin 7 (GAL7)

Organism Species: *Homo sapiens (Human)*

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Met1~Phe136

Tags: N-terminal His Tag

Purity: >92%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 7.2

Predicted Molecular Mass: 16.3kDa

Accurate Molecular Mass: 16kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: 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°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.

[SEQUENCE]

MSNVPHKSSL PEGIRPGTVL RIRGLVPPNA SRFHVNLLCG EEQGSDAALH FNPRLDTSEV
VFNSKEQGSW GREERPGVP FQRGQPFEVL IIASDDGFKA VVGDAQYHHF RHRLPLARVR
LVEVGGDVQL DSVRIF

[ACTIVITY]

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 human GAL7 with 0.9% sodium chloride injection, add 50µL 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 50µL 0.9% sodium chloride injection. Then add 50µL 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 6.25 $\mu\text{g/mL}$.

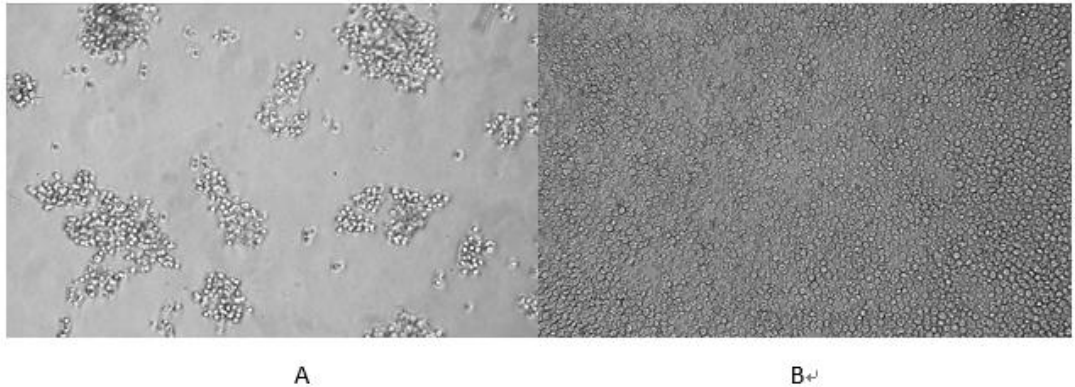


Figure 1. The hemagglutination of recombinant Hu GAL7

- (A) Rabbit erythrocyte agglutinated by recombinant human GAL7;
- (B) Rabbit erythrocyte without recombinant human GAL7.

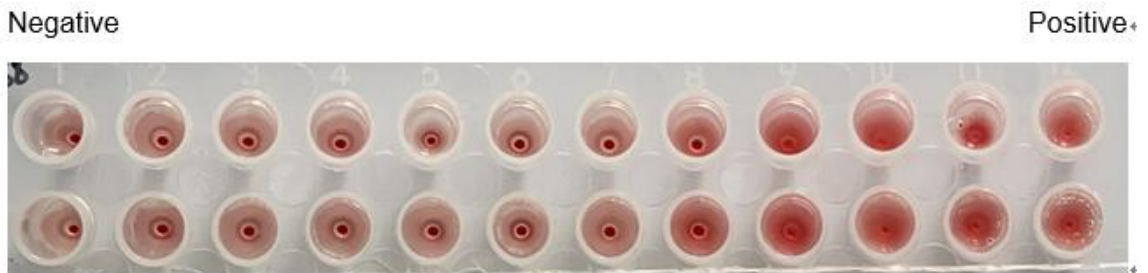


Figure 2. The hemagglutination assay of GAL7 in V- bottom shaped 96-well microtiter plate.

[IDENTIFICATION]

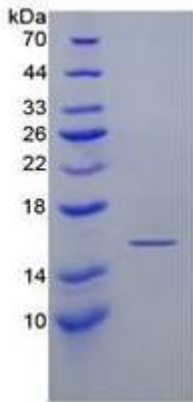


Figure 3. SDS-PAGE

Sample: Active recombinant GAL7, Human

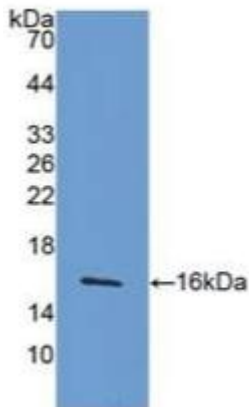


Figure 4. Western Blot

Sample: Recombinant GAL7, Human;

Antibody: Rabbit Anti- Human GAL7 Ab (PAA307Hu01)

[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.