

**APA303Mu01 100µg**

**Active Galectin 3 (GAL3)**

**Organism Species: *Mus musculus (Mouse)***

***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:** Ala2~Ile264

**Tags:** N-terminal His-tag

**Purity:** >98%

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

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% sarcosyl and 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:** 7.9

**Predicted Molecular Mass:** 30.1kDa

**Accurate Molecular Mass:** 31kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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.

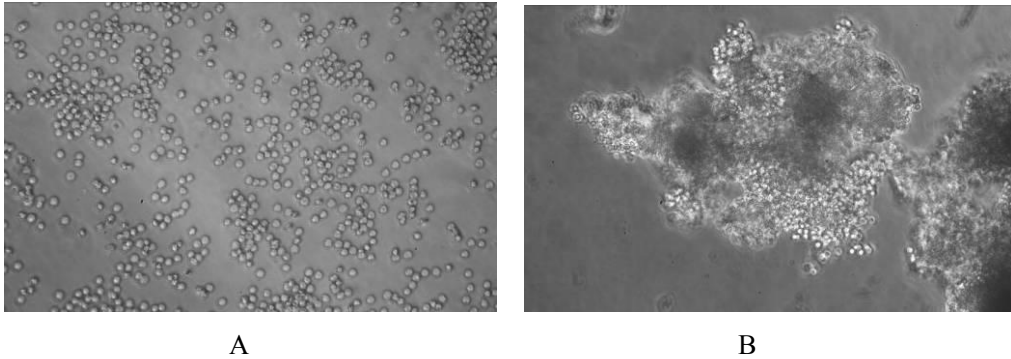
## **[ SEQUENCE ]**

```
ADSFSLNDA LAGSGNPNPQ GYPGAWGNQP GAGGYPGAAY PGAYPGQAPP
GAYPGQAPPG AYPGQAPPSA YPGPTAPGAY PGPTAPGAYP GSTAPGAFPG
QPGAPGAYPS APGGYPAAGP YGVPAGPLTV PYDLPLPGGV MPRMLITIMG
TVKPNANRIV LDFRRGNDVA FHFNPRFNEN NRRVIVCNTK QDNNWGKEER
QSAFPFESGK PFKIQVLVEA DHFKVAVNDA HLLQYNHRMK NLREISQLGI
SGDITLTSAN HAMI
```

## **[ ACTIVITY ]**

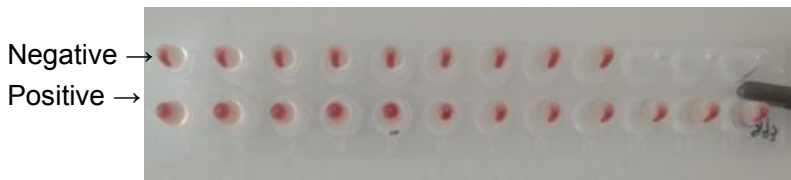
Galectin 3 (GAL3) is a member of the lectin family, of which 14 mammalian galectins have been identified. It is also a member of the beta-galactoside-binding protein family that plays an important role in cell-cell adhesion, cell-matrix interactions, macrophage activation, angiogenesis, metastasis, apoptosis. 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 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 mouse GAL3 with 0.9% sodium chloride injection, add 50µL 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 without GAL3, 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

GAL3 is 3.1µg/ml.



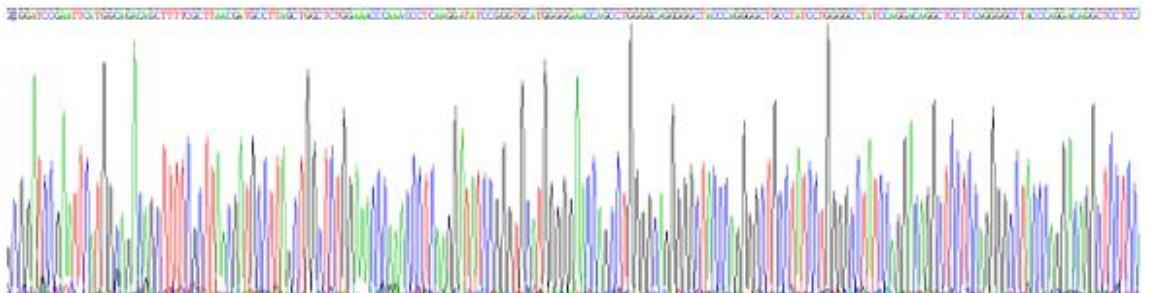
**Figure 1. The hemagglutination of recombinant mouse GAL3**

- (A) Negative control without GAL3;
- (B) 1% RaE tread with 3.1µg/ml GAL3 for 2h.

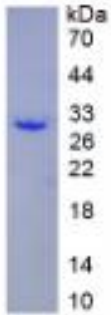


**Figure 2. The hemagglutination assay of GAL3 in V- bottom shaped 96-well microtiter plate.**

## **[ IDENTIFICATION ]**

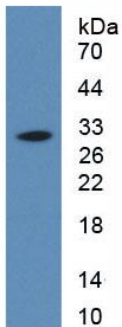


**Figure 3. Gene Sequencing (extract)**



**Figure 4. SDS-PAGE**

**Sample: Active recombinant GAL3, Mouse**



**Figure 5. Western Blot**

**Sample: Recombinant GAL3, Mouse;**

**Antibody: Rabbit Anti- Mouse GAL3 Ab (PAA303Mu01)**

### **[ 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.