APA308Bo01 100μg
Active Galectin 8 (GAL8)
Organism Species: *Bos taurus; Bovine (Cattle)*
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~Trp357
Tags: N-terminal His-tag
Purity: >92%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% 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: 9.0
Predicted Molecular Mass: 43.8kDa
Accurate Molecular Mass: 41kDa 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.

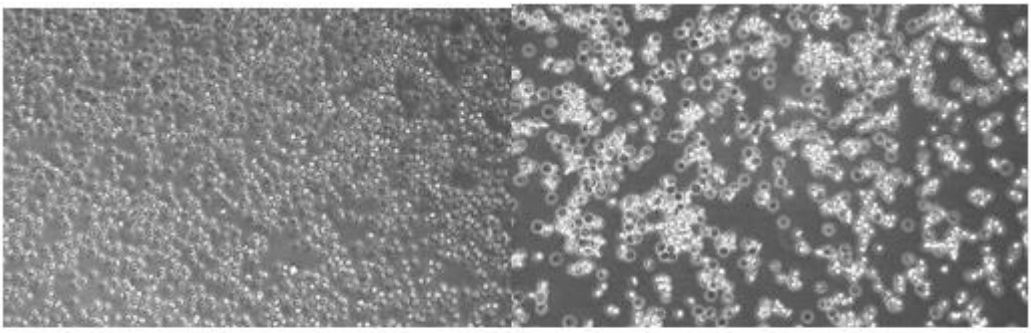
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

MMSLNNLQNV IYNPVIPYVG TISEQLEPGT LIVLRGHVPS DSDRFQVDLQ
CGSSVKPRAD VAFHFNPRFK RANCVVCNTL RNEKWGWEEI TYDMPFKKEK
SFEIVIMVLK EKFQVAVNGR HTLLYAHRIS PERIDTLGIY GKVIIHSVGF
SFSSDLGSTQ GSTLEPTGIS KENVQKSGES QLPSNRGDIS KIVPRTVYTK
SKASPANHTL TCAKILPTNC LSKTLPFVAR LNSSMGPGRT IVIKGEVNTN
AKGFTVDLLS GKSKDIALHL NPRLNVKAFV RNSFLQEAWG EEERNITCFP
FSPGMYFEMI IYCDAREFKV AVNGVHSLEY KHRFKELSKV DTLEIDGDIH
LLEVRSW

[ACTIVITY]

Galectin 8 (GAL8), also known as prostate carcinoma tumor antigen 1 (PCTA1) in human, is a tandem repeat-type galectin. 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. 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 Bovine GAL8 with 0.9% sodium chloride injection, add 50μL a serial dilution of GAL8 to each well of a U or V-bottom shaped 96-well microtiter plate. The final well serves as a negative control with no GAL8, 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 GAL8 is 0.781 μg/mL.



A B

Figure 1. The hemagglutination of recombinant Cattle GAL8

(A) Rabbit erythrocyte reacted with no GAL8 for 3h;

(B) Rabbit erythrocyte reacted with 50ug/ml GAL8 for 3h.

Positive Negative

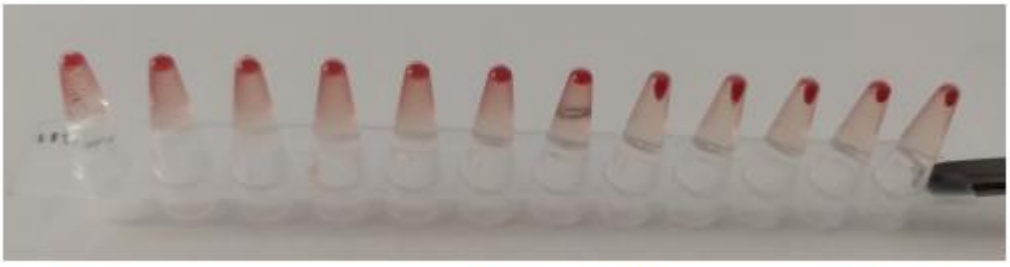


Figure 2. The hemagglutination assay of GAL8 in V- bottom shaped 96-well microtiter plate.

[IDENTIFICATION]

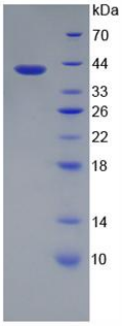


Figure 3. SDS-PAGE

Sample: Active recombinant GAL8, Cattle

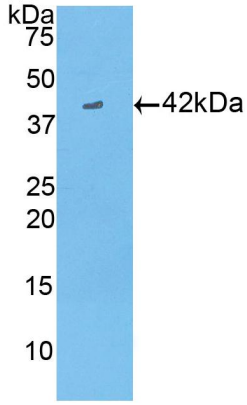


Figure 4. Western Blot

Sample: Recombinant GAL8, Cattle;

Antibody: Rabbit Anti-Cattle GAL8 Ab (PAA308Bo01)

[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.