

APB228Mu01 100µg
Active Integrin Alpha 2 (ITGa2)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Gln212~Asn370

Tags: N-terminal His and GST Tag

Purity: >95%

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

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

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 4.8

Predicted Molecular Mass: 47.8kDa

Accurate Molecular Mass: 48kDa 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]

QYANEPRII FNLNDFETKE DMVQATSETR QHGGDLTNTF RAIEFARDYA YSQTSGGRPG ATKVMVVVTD GESHDGSKLK
TVIQQCNDDE ILRFGIAVLG YLNRNALDTK NLIKEIKAIA STPTERYFFN VADEAALLEK AGTLGEQIFP IEGTVQGGDN

[ACTIVITY]

Integrin Alpha 2 (ITGa2), also known as CD49b, is one of twelve integrin family alpha subunits which is pivotal to sustain the integrity of the cytoskeletal - extracellular matrix linkage among all cell adhesion receptors. Some research had shown that ITGa2 is a cell transmembrane receptor that assists the adhesion of other several cells to the extracellular matrix. In addition, changes of ITGa2 expression affect the immune microenvironment and immunogenicity of tumors. Integrin Beta 1 (ITGb1) has been identified as an interactor of ITGa2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse ITGa2 and recombinant mouse ITGb1. Briefly, ITGa2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to ITGb1-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-ITGa2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C. Finally, add 50 μ L stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant mouse ITGa2 and recombinant mouse ITGb1 was shown in Figure 1, the EC50 for this effect is 0.6 ug/mL.

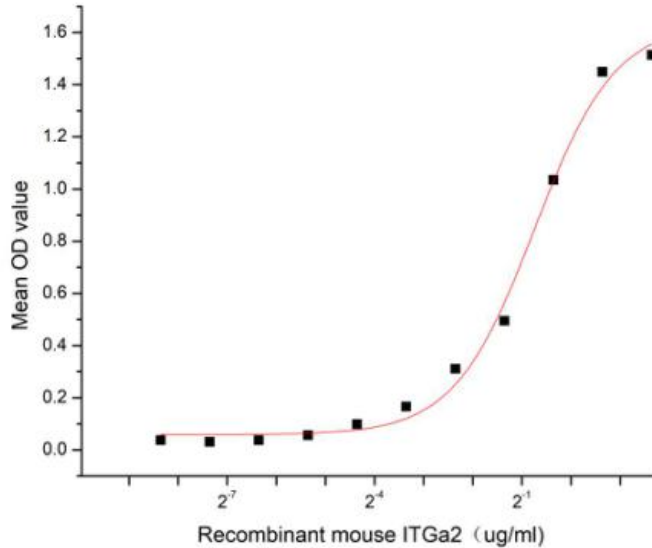


Figure 1. The binding activity of recombinant mouse ITGa2 and recombinant mouse ITGb1

[IDENTIFICATION]



Figure 2. SDS-PAGE

Sample: Active recombinant ITGa2, Mouse

[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.