APB014Mu01 100μg
Active Integrin Associated Protein (IAP)
Organism Species: Mus musculus (Mouse)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ala18~Gly219
Tags: N-terminal His-tag
Purity: >92%
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: 7.7
Predicted Molecular Mass: 23.7kDa
Accurate Molecular Mass: 23kDa 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]

AQL LFSNVNSIEF TSCNETVVIP CIVRNVEAQS
TEEMFVKWKL NKSYIFIYDG NKNSTTTDQN FTSAKISVSD LINGIASLKM
DKRDAMVGNY TCEVTELSRE GKTVIELKNR TAFNTDQGSA CSYEEEKGGC
KLVSWFSPNE KILIVIFPIL AILLFWGKFG ILTLKYKSSH TNKRIILLLV
AGLVLTVIVV VGAILLIPG

[ACTIVITY]

Integrin Associated Protein (IAP) also known as Cluster of Differentiation 47 (CD47) is a transmembrane protein. CD47 belongs to the immunoglobulin superfamily and partners with membrane integrins and also binds the ligands thrombospondin-1 (TSP-1) and signal-regulatory protein alpha (SIRPα). CD47 is involved in a range of cellular processes, including apoptosis, proliferation, adhesion, and migration. Furthermore, it plays a key role in immune and angiogenic responses. CD47 is ubiquitously expressed in human cells and has been found to be overexpressed in many different tumor cells. Besides, Thrombospondin 1 (THBS1) has been identified as an interactor of IAP, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse IAP and recombinant mouse THBS1. Briefly, IAP were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to THBS1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IAP pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated

15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of IAP and THBS1 was shown in Figure 1, and this effect was in a dose dependent manner.

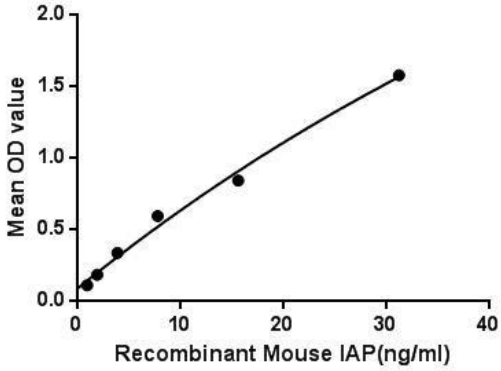

Figure 1. The binding activity of IAP with THBS1.

[IDENTIFICATION]

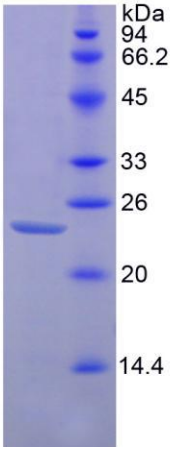

Figure 2. SDS-PAGE

Sample: Active recombinant IAP, Mouse

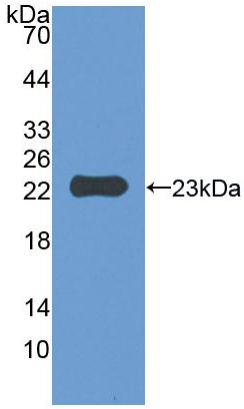

Figure 3. Western Blot

Sample: Recombinant IAP, Mouse;

Antibody: Rabbit Anti-Mouse IAP Ab (PAB014Mu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.