APB540Ra01 100μg
Active Cluster Of Differentiation 147 (CD147)
Organism Species: *Rattus norvegicus (Rat)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Glu59~Val321
Tags: N-terminal His-tag
Purity: >95%
Traits: Freeze-dried powder
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: 5.6
Predicted Molecular Mass: 32.6kDa
Accurate Molecular Mass: 33kDa 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]

EG NEPNDSCSQL WDGARLDRVH IHATYRQHAA STLSVDGLAA
EDTGTYECRA SSDPDRNHLT RPPRVKWVRA QASVVVLEPG TIVTSVQEVD
SKTQLTCFLN SSGIDIVGHR WMRGGKVLQE DTLPDLQMKY TVDADDRSGE
YSCIFLPEPV GRGNINVEGP PRIKVGKKSE HASEGEFVKL ICKSEASHPP
VDEWVWFKTS DTGDQTISNG TEANSKYVII STPELSELII SDLDMNVDPG
TYVCNATNSQ GSARETISLR V

[ACTIVITY]

Extracellular matrix metalloproteinase (MMP) inducer (EMMPRIN), also known as basigin and CD147, is a 44-66 kDa, variably N- and O-glycosylated, type I transmembrane protein that belongs to the immunoglobulin superfamily. EMMPRIN is 269 amino acids (aa) in length and contains a 24 aa signal sequence, a 183 aa extracellular domain (ECD), a 21 aa transmembrane (TM) segment and a 41 aa cytoplasmic tail. The ECD contains one C2-type and one V-type Ig-like domain. EMMPRIN is expressed in areas of tissue remodeling, including endometrium, placenta, skin, and regions undergoing angiogenesis. It is also expressed on cells with high metabolic activity, such as lymphoblasts, macrophages and particularly tumor cells. A functional ELISA assay was conducted to detect the interaction of recombinant rat EMMPRIN/CD147 and recombinant human ITGb1. Briefly, CD147 was diluted serially in PBS with 0.01% BSA (pH 7.4).

Duplicate samples of 100 µl were then transferred to Spike glycoprotein-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CD147 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 ℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant rat CD147 and recombinant human ITGb1 was shown in Figure 1, the EC50 for this effect is 0.166 ug/mL.

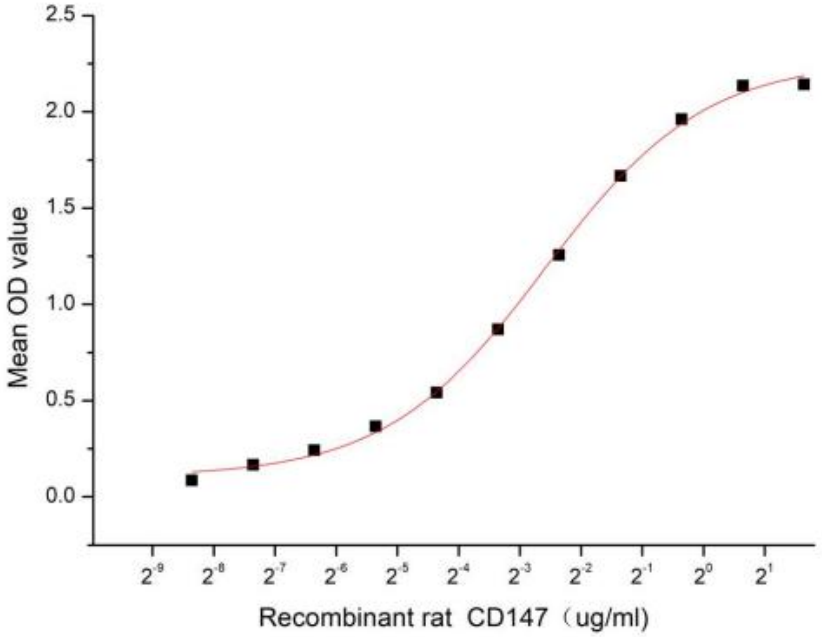

Figure 1. The binding activity of recombinant rat CD147 and recombinant human ITGb1

[IDENTIFICATION]

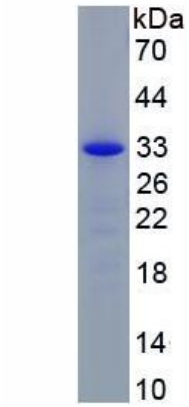

Figure 2. SDS-PAGE

Sample: Active recombinant CD147, Rat

[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.