

APB540Mu02 100µg
Active Cluster Of Differentiation 147 (CD147)
Organism Species: *Mus musculus (Mouse)*
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: Ala22~Arg325

Tags: Two N-terminal Tags, His-tag and SUMO-tag

Purity: >90%

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: 5.0

Predicted Molecular Mass: 46.7kDa

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]

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AAGFLKAPLSQERWAGGSVVLHCEAVGSPICEIQWVFEGNAPNDSCSQLWDGARLDRVHIHAAYRQHAASSLSVDGLTAEDTGTIECRAS
SDPDRNHLTRPPRVKWRAGASVVLEPGTIQTSVQEVNSKTQLTCSLNSGVDIVGHRWMRGGKVLQEDTLPDLHTKYIVDADDRSGEY
SCIFLPEPVGGRSEINVEGPPRIKVGKKSEHSSEGELAKLVCKSDASYPPITDWFVFKTSDTGEEEAITNSTEANGKYVVVSTPEKSQTLI
SNLDVNVDPGTYVCNATNAQGTRETISLRVRSR
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[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 binding ELISA assay was conducted to detect the interaction of recombinant mouse EMMPRIN/CD147 and recombinant mouse Cyclophilin A (CYPA). Briefly, recombinant mouse CD147 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to CYPA-coated microtiter wells and incubated for 1h at 37°C. 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°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 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of CD147 and CYPA was shown in Figure 1, the EC50 for this effect is 0.44 ug/mL.

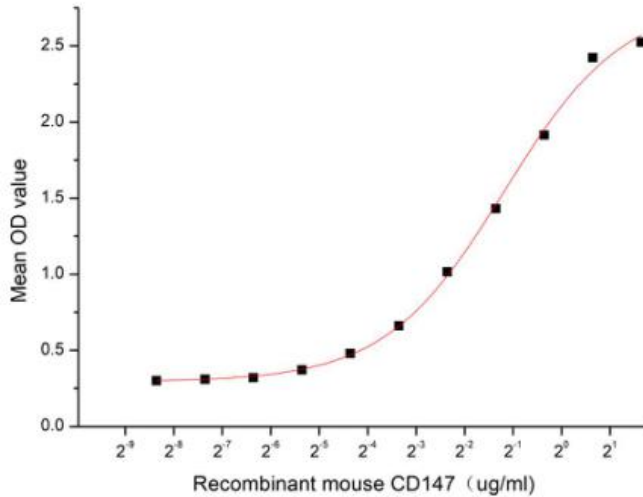


Figure 1. The binding activity of recombinant mouse CD147 and recombinant mouse CYPA

[IDENTIFICATION]



Figure 2. SDS-PAGE

Sample: Active recombinant CD147, 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.