APB522Hu01 100μg
Active Pulmonary Activation Regulated Chemokine (PARC)
Organism Species: *Homo sapiens* (Human)
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: Ala21~Ala89
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: 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: 8.7kDa
Accurate Molecular Mass: 9kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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]

AQVGTNKELC CLVYTSWQIP QKFIVDYSET
SPQCPKPGVI LLTKRGRQIC ADPNKKWVQK YISDLKLNA

[ACTIVITY]

Pulmonary Activation Regulated Chemokine (PARC), also known as CCL18, is a small secreted protein belonging to the C-C chemokine family. It is primarily expressed by activated macrophages and dendritic cells in the lung. PARC mediates leukocyte recruitment during inflammation, particularly in allergic asthma and pulmonary fibrosis. Structurally, it contains conserved cysteine residues critical for receptor binding.PARC binds to CCR7, a G-protein-coupled receptor expressed on T cells and dendritic cells, promoting their migration to inflamed tissues and lymphoid organs, thereby regulating adaptive immune responses.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human PARC and recombinant human CCR7. Briefly, PARC was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CCR7-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-PARC 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 human PARC and recombinant human CCR7 was shown in Figure 1, the EC50 for this effect is 0.056ug/mL.

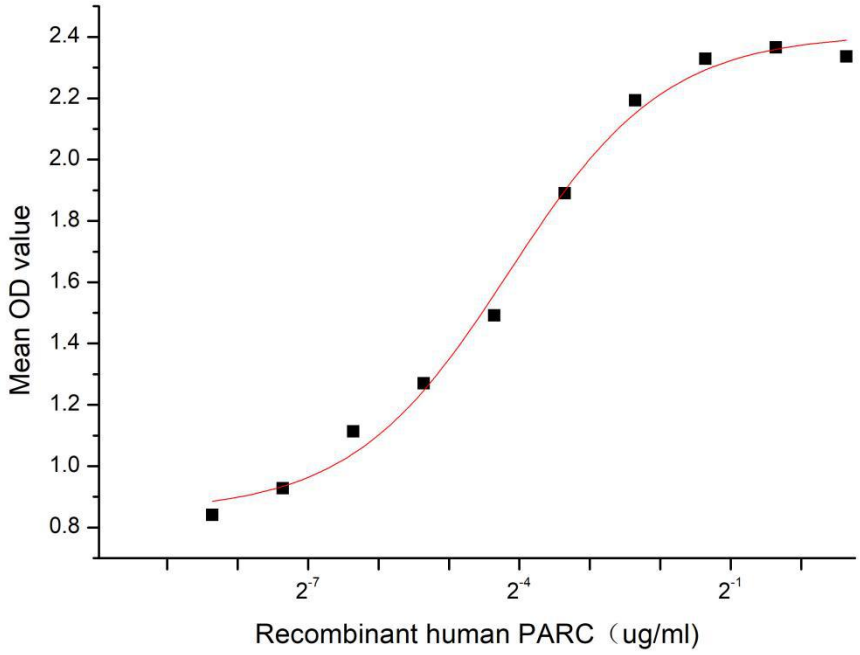

Figure 1. The binding activity of recombinant human PARC and human CCR7

[IDENTIFICATION]

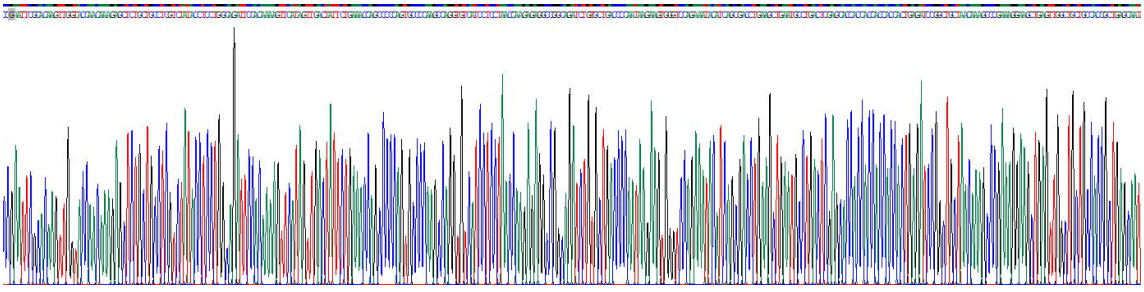

Figure 2. Gene Sequencing (extract)

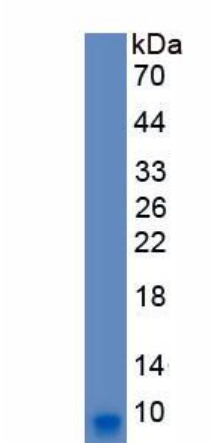

Figure 3. SDS-PAGE

Sample: Active recombinant PARC, Human

[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.