

APA385Mu61 100µg

Active Interleukin 27A (IL27A)

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: Eukaryotic expression.

Host: 293F cell

Residues: Phe29~Ser234

Tags: N-terminal His-tag

Purity: >95%

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

Buffer Formulation: PBS, pH7.4, containing 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: 5.3

Predicted Molecular Mass: 25.4kDa

Accurate Molecular Mass: 28kDa 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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FP TDPLSLQELR REFTVSLYLA
RKLLSEVQGY VHSFAESRLP GVNLDLLPLG YHLPNVSLTF QAWHHLSDSE
RLCFLATTLR PFPAMLGGLG TQGTWTSSER EQLWAMRLDL RDLHRHLRFQ
VLAAGFKCSK EEEDKEEEEE EEEEEKKLPL GALGGPNQVS SQVSWPQLLY
TYQLLSLEL VLSRAVRDLL LLSLPRRPGS AWDS
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[ACTIVITY]

Interleukin 27A (IL27A, also known as p28) is a key subunit of the IL-27 cytokine, belonging to the IL-6/IL-12 family. It has a typical four-helix bundle structure, which is essential for its biological functions. Though it carries the core activity to regulate immune cell differentiation and mediate pro-inflammatory or anti-inflammatory effects, IL-27A is unstable and unable to be secreted or exert functions independently. IL-27A directly binds to EBI3 to form the functional IL-27 heterodimer. To detect the activity of recombinant IL27A, a functional ELISA assay was performed to evaluate the interaction between recombinant mouse IL27A and recombinant human EBI3. Briefly, biotin-linked IL27A were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to EBI3-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µl stop solution to the wells and read at 450nm immediately. The binding activity of IL27A and EBI3 was shown in Figure 1, the EC₅₀ for this effect is 0.55µg/mL.

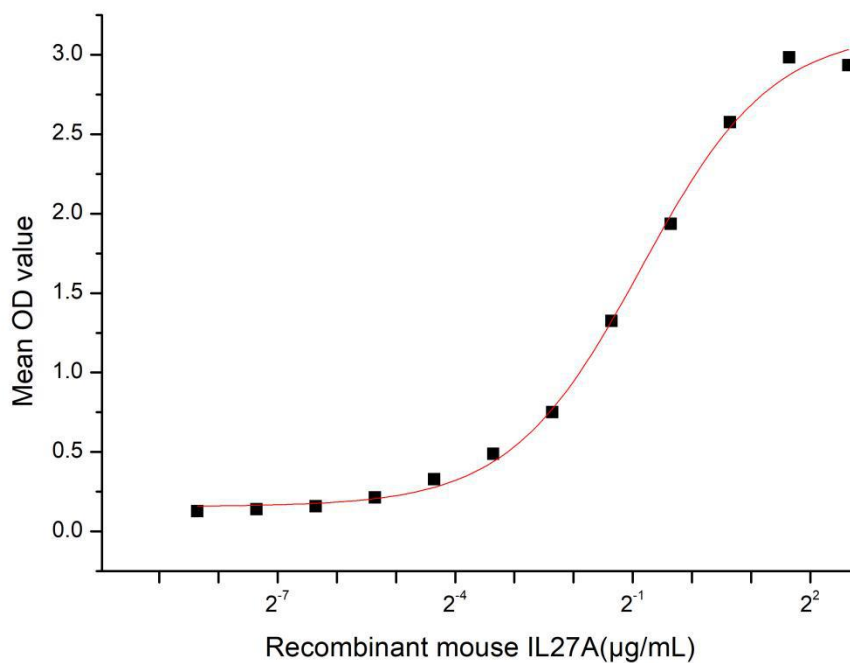


Figure 1. The binding activity of recombinant mouse IL27A and recombinant human EBI3

[IDENTIFICATION]

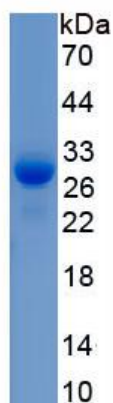


Figure 2. SDS-PAGE

Sample: Active recombinant IL27A, 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.