

APC029Ra61 100µg

Active Interleukin 29 (IL29)

Organism Species: *Rattus norvegicus* (Rat)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Thr25~Ala192

Tags: N-terminal His-tag

Purity: >90%

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

Buffer Formulation: PBS, pH7.4, containing 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: 8.9

Predicted Molecular Mass: 19.6kDa

Accurate Molecular Mass: 28&30kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in 10mM PBS (pH7.6) 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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                TRLPVE AKDCNIAQFK SLSPQELQAF  
RKAKDAIEEG LPQKDVERRAS RLLPRDGLQ QLQVQERQKA LQAEVALTLK  
VLGNMTPAL VTILGQPLHT LSHIHSQLQT CTEPQPTAEP TPQSRLLSRW  
LHRLQEAQNK ETPGCLKAYV TLNLFRLLTR DLKCVASGDQ CA
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[ACTIVITY]

Interleukin-29 (IL-29) is a member of the helical cytokine family and is a type III interferon. It is also known as IFN λ 1 and is highly similar in amino acid sequence to the IL-28, the other type III interferon. IL-29 plays an important role in host defenses against microbes and its gene is highly upregulated in cells infected with viruses. Besides, ATPase, Ca⁺⁺ Transporting, Plasma Membrane 2 (ATP2B2) has been identified as an interactor of IL29, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IL29 and recombinant human ATP2B2. Briefly, IL29 were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to ATP2B2-coated microtiter wells and incubated for 2h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-IL29 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 °C. Finally, add 50 μ L stop solution to the wells and read at 450nm immediately. The

binding activity of IL29 and ATP2B2 was shown in Figure 1, and this effect was in a dose dependent manner.

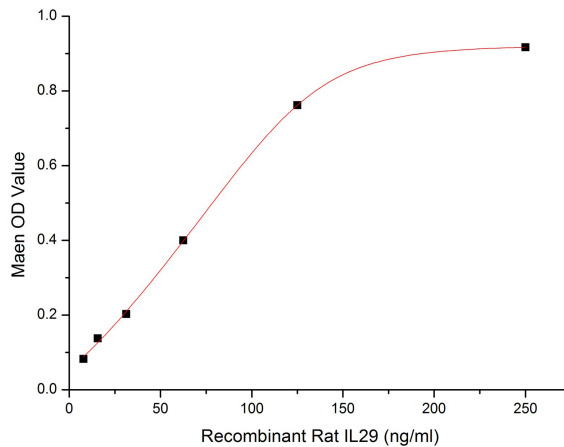


Figure 1. The binding activity of IL29 with ATP2B2

[IDENTIFICATION]

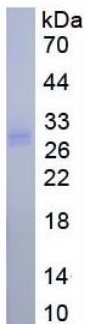


Figure 2. SDS-PAGE

Sample: Active recombinant IL29, 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.