

APA079Ra61 10µg

Active Interleukin 6 (IL6)

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: Phe25~Thr211

Tags: N-terminal His-tag

Purity: >95%

Buffer Formulation: PBS, pH7.6, containing 5% trehalose.

Applications: Cell culture; Activity Assays; In vivo assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 7.8

Predicted Molecular Mass: 23.3kDa

Accurate Molecular Mass: 27kDa 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 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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                                FPTSQV RRGDFTEDTT HNRPVYTTSQ
VGGLITYVLR EILEMRKELC NGNSDCMNSD DALSENNLKL PEIQRNDGCF
QTGYNQEICL LKICSGLLEF RFYLEFVKNN LQDNKKDKAR VIQSNTETLV
HIFKQEIKDS YKIVLPTPTS NALLMEKLES QKEWLRTKTI QLILKALEEF
LKVTMRSTRQ T
    
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[ACTIVITY]

Interleukin-6 (IL-6), a pro-inflammatory cytokine and an anti-inflammatory myokine, plays important roles in the acute phase reaction, inflammation, hematopoiesis, bone metabolism, and cancer progression. It has been reported that IL-6 significantly increased the MMP-10 protein level in the human lung cancer A549 cells through the JAK/STAT signaling pathway. Briefly, A549 cells were seeded into 6-well cell culture clusters and allowed to grow to 50-70% confluence, then different concentrations of IL-6 was added. After incubated for 24h, the protein levels of MMP-10 in the cell supernatant were determined by Western blot.

Result: MMP-10 protein level significantly increased in A549 cells due to the stimulation of IL-6, the data was shown in Figure 1.

IL-6(ng/mL)

0

25

50

MMP-10



Figure 1. Effect of Rat IL-6 on MMP-10 protein levels.

[IDENTIFICATION]

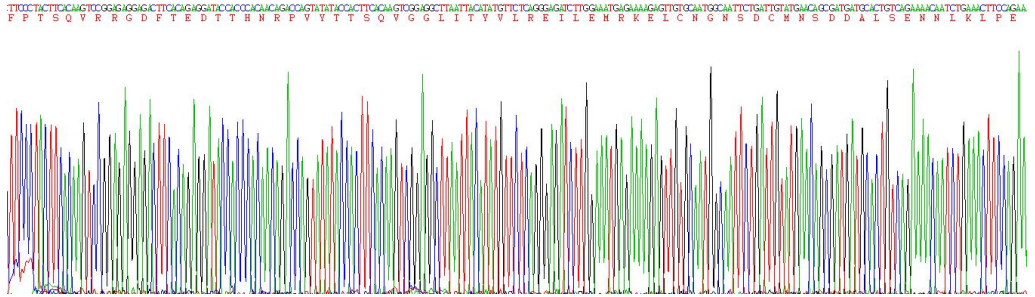


Figure 2. Gene Sequencing (extract)

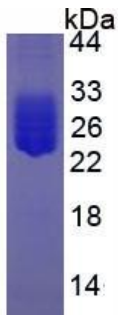


Figure 3. SDS-PAGE

Sample: Active recombinant IL6, Rat

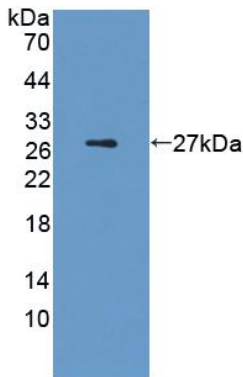


Figure 4. Western Blot

Sample: Recombinant IL6, Rat;

Antibody: Rabbit Anti-Rat IL6 Ab (PAA079Ra06)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.