APA079Ra61 100μg
Active Interleukin 6 (IL6)
Organism Species: Rattus norvegicus (Rat)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th 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]

FPTSQV RRGDFTEDTT HNRPVYTTSQ
VGGLITYVLR EILEMRKELC NGNSDCMNSD DALSENNLKL PEIQRNDGCF
QTGYNQEICL LKICSGLLEF RFYLEFVKNN LQDNKKDKAR VIQSNTETLV
HIFKQEIKDS YKIVLPTPTS NALLMEKLES QKEWLRTKTI QLILKALEEF
LKVTMRSTRQ T

[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 lever 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 lever significantly increased in A549 cells due to the stimulation of IL-6, the data was shown in Figure 1.

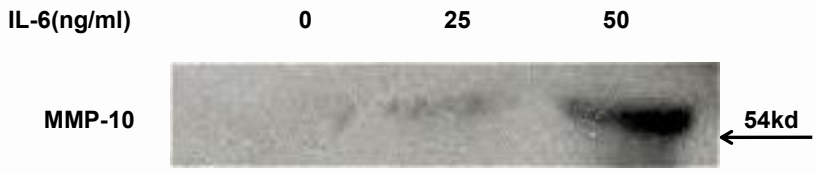

Figure 1. Effect of Rat IL-6 on MMP-10 protein levels.

[IDENTIFICATION]

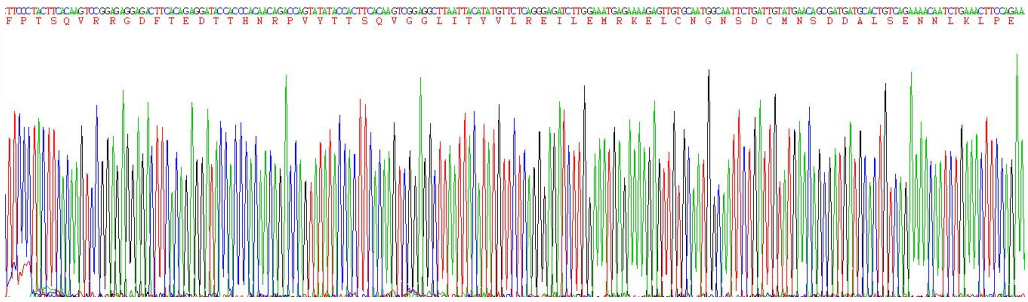

Figure 2. Gene Sequencing (extract)

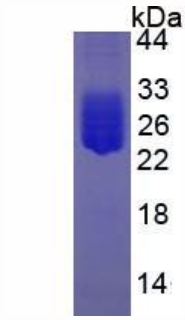

Figure 3. SDS-PAGE

Sample: Active recombinant IL6, Rat

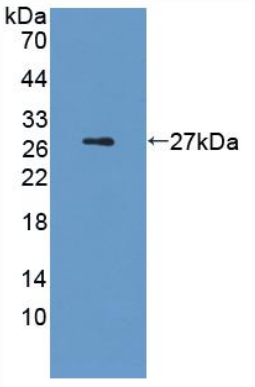

Figure 4. Western Blot

Sample: Recombinant IL6, Rat;

Antibody: Rabbit Anti-Rat IL6 Ab (PAA079Ra06)