

**APF493Hu01 100µg**

**Active Janus Kinase 3 (JAK3)**

**Organism Species: Homo sapiens (Human)**

***Instruction manual***

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

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1th Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Trp716~Asp967

**Tags:** N-terminal His-tag

**Purity:** >98%

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 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:** 8.5

**Predicted Molecular Mass:** 32.3kDa

**Accurate Molecular Mass:** 32kDa as determined by SDS-PAGE reducing conditions.

## **[ USAGE ]**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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.

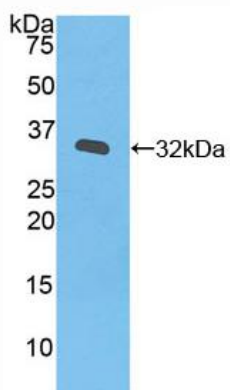
## **[ SEQUENCE ]**

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WEVFS  GVTMPISALD  PAKKLQFYED  RQQLPAPKWT
ELALLIQQCM  AYEPVQRPSF  RAVIRDLNSL  ISSDYELLSLSD  PTPGALAPRD
GLWNGAQLYA  CQDPTIFEER  HLKYISQLGK  GNFGSVELCR  YDPLGDNTGA
LVAVKQLQHS  GPDQQRDFQR  EIQILKALHS  DFIVKYRGVS  YGPGRQSLRL
VMEYLPSCGL  RDFLQRHRAR  LDASRLLLYS  SQICKGMEYL  GSRRCVHRDL
AARNILVESE  AHVKIAD
```

## **[ ACTIVITY ]**

JAK3 (Tyrosine-protein kinase JAK3) is a non-receptor tyrosine kinase that involved in various processes such as cell growth, development, or differentiation. Besides, STAM2 has been identified as an interactor of JAK3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human JAK3 and recombinant human STAM2. Briefly, JAK3 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to STAM2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-JAK3 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 50µL stop solution to the wells and read at 450nm immediately. The binding activity of of JAK3 and STAM2 was shown in Figure 1, and this effect was in a dose dependent manner.





**Figure 4. Western Blot**

**Sample: Recombinant JAK3, Human;**

**Antibody: Rabbit Anti-Human JAK3 Ab (PAF493Hu01)**