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

1st 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

WEVFS GVTMPISALD PAKKLQFYED RQQLPAPKWT ELALLIQQCM AYEPVQRPSF RAVIRDLNSL ISSDYELLSD PTPGALAPRD GLWNGAQLYA CQDPTIFEER HLKYISQLGK GNFGSVELCR YDPLGDNTGA LVAVKQLQHS GPDQQRDFQR EIQILKALHS DFIVKYRGVS YGPGRQSLRL VMEYLPSGCL 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℃. 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℃. 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.

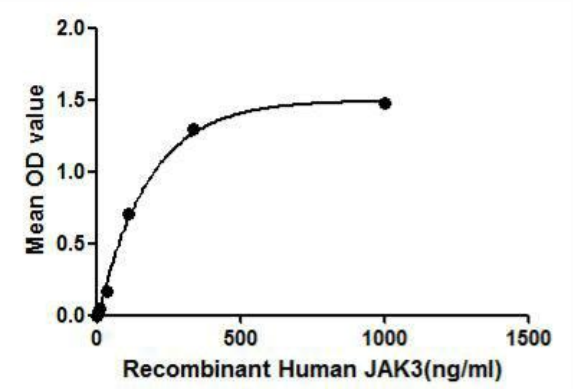

Figure 1. The binding activity of JAK3 with STAM2.

[IDENTIFICATION]

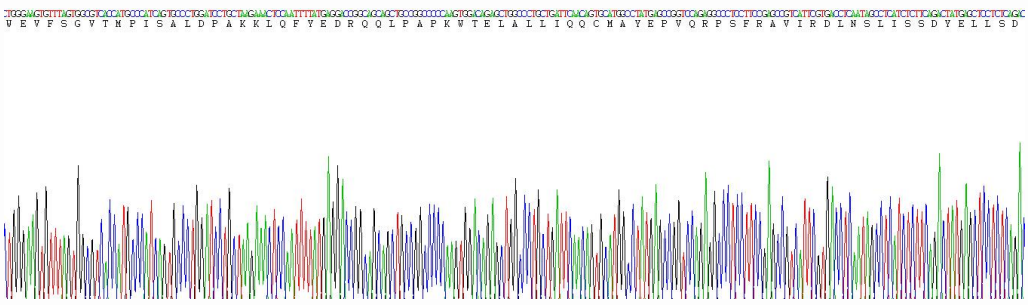

Figure 2. Gene Sequencing (extract)

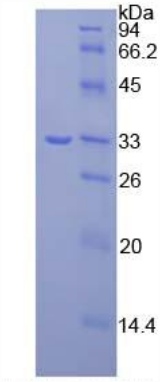

Figure 3. SDS-PAGE

Sample: Active recombinant JAK3, Human

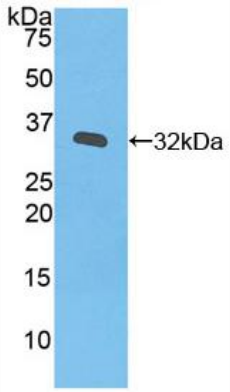

Figure 4. Western Blot

Sample: Recombinant JAK3, Human;

Antibody: Rabbit Anti-Human JAK3 Ab (PAF493Hu01)