APB684Mu01 100μg
Active Suppressors Of Cytokine Signaling 3 (SOCS3)
Organism Species: Mus musculus (Mouse)
Instruction manual

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

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met1~Leu225
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: 8.7
Predicted Molecular Mass: 26.0kDa
Accurate Molecular Mass: 26kDa 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^{o}C for one month.
Aliquot and store at -80^{o}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 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]

MVTHSKFPAA GMSRPLDTSL RLKTFSSKSE YQLVVNAVRK LQESGFYWSA
VTGGEANLLL SAEPAGTFLI RDSSDQRHFF TLSVKTQSGT KNLRIQCEGG
SFSLQSDPRS TQPVPRFDCV LKLVHHYMPP PGTPSFSLPP TEPSSEVPEQ
PPAQALPGST PKRAYYIYSG GEKIPLVLSR PLSSNVATLQ HLCRKTVNGH
LDSYEKVTQL PGPIREFLDQ YDAPL

[ACTIVITY]

Suppressor of cytokine signaling 3 (SOCS3) is a member of the STAT-induced STAT inhibitor (SSI), also known as suppressor of cytokine signaling (SOCS), family that negatively regulates cytokine signal transduction. SOCS3 is feedback inhibitors of the Janus kinase (JAK) and signal transducer and activator of transcription (STAT) signaling pathway. Inhibits cytokine signal transduction by binding to tyrosine kinase receptors including gp130, LIF, erythropoietin, insulin, IL12, GCSF and leptin receptors. SOCS3 also can bind to JAK2 kinase inhibits its kinase activity and nhibits insulin signaling in adipose tissue and the liver. Besides, Glycoprotein 130 (gp130) has been identified as an interactor of SOCS3, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse SOCS3 and recombinant mouse gp130. Briefly, SOCS3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to SOCS3-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-SOCS3 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 SOCS3 and gp130 was shown in Figure 1, and this effect was in a dose dependent manner.

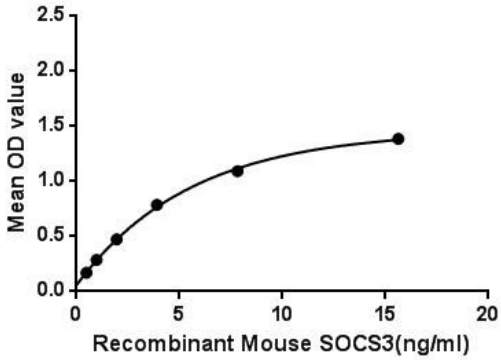

Figure 1. The binding activity of SOCS3 with gp130.

[IDENTIFICATION]

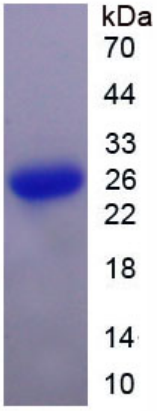

Figure 2. SDS-PAGE

Sample: Active recombinant SOCS3, Mouse

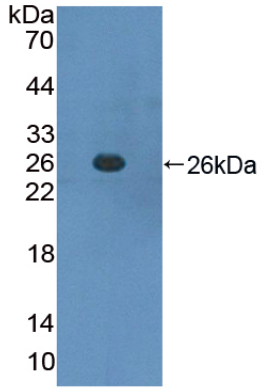

Figure 3. Western Blot

Sample: Recombinant SOCS3, Mouse;

Antibody: Rabbit Anti-Mouse SOCS3 Ab (PAB684Mu01)