

Signal Transducer And Activator Of Transcription 3 Active Protein | STAT3 active protein

Active Signal Transducer And Activator Of Transcription 3 (STAT3)

CATALOG #
AAA150116

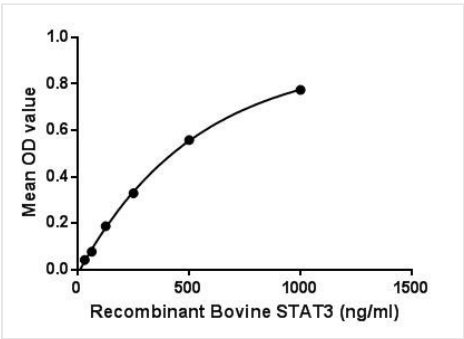
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Signal Transducer And Activator Of Transcription 3; Active Signal Transducer And Activator Of Transcription 3 (STAT3); APRF; Acute-Phase Response Factor; STAT3 active protein

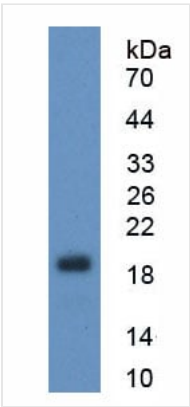
PRODUCT SPECIFICATIONS

Purity/Purification	>90%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Val563-Leu670
Sequence Length	770
Applicable Applications for STAT3 active protein	Activity Assay, Cell Culture
Species	Cattle
Tag	N-terminal His Tag
Isoelectric Point	6.6
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: 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 degree 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.

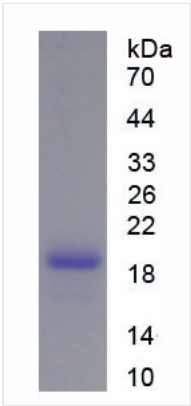


Bioactivity

Signal transducer and activator of transcription 3 (STAT3) is a member of the STAT protein family. In response to cytokines and growth factors, STAT3 is phosphorylated by receptor-associated Janus kinases (JAK), form homo- or heterodimers, and translocate to the cell nucleus where they act as transcription activators. The protein can mediate the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. STAT3 is essential for the differentiation of the TH17 helper T cells, which have been implicated in a variety of autoimmune diseases. Besides, Glucose 7 Phosphate Isomerase (GPI) has been identified as an interactor of STAT3, thus a binding ELISA assay was conducted to detect the interaction of recombinant bovine STAT3 and recombinant human GPI. Briefly, STAT3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100L were then transferred to GPI-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-STAT3 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 50uL stop solution to the wells and read at 450nm immediately. The binding activity of STAT3 and GPI was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of STAT3 with GPI.



WB (Western Blot)
Figure. Western Blot



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for STAT3 active protein	Signal transduction; Apoptosis
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NCBI AND UNIPROT INFORMATION

NCBI GI #	162287361
NCBI GeneID	508541
NCBI Accession #	NP_001012689.2
NCBI GenBank Nucleotide #	NP_001012689.2
UniProt Accession #	P61635

Molecular Weight	Predicted Molecular Mass: 13.6kDa Accurate Molecular Mass: 19kDa
NCBI Official Full Name	signal transducer and activator of transcription 3
NCBI Official Synonym Full Names	signal transducer and activator of transcription 3
NCBI Official Symbol	STAT3
NCBI Protein Information	signal transducer and activator of transcription 3
UniProt Protein Name	Signal transducer and activator of transcription 3
UniProt Gene Name	STAT3
UniProt Entry Name	STAT3_BOVIN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/stat3-active-protein/signal-transducer-and-activator-of-transcription-3/150116>