

Bovine STAT3 protein, His tag

Cat. No. GTX00076-pro

Applications Functional Assay**Species** Bovine**Package**

10 µg

Applications

Application Note

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 100 µl were then transferred to GPI-coated microtiter wells and incubated for 2h at 37°C. 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°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of STAT3 and GPI was in a dose dependent manner.

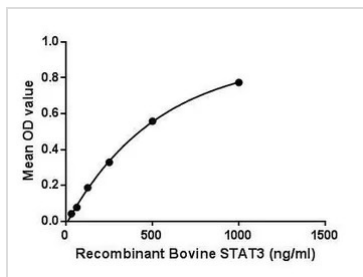
Observed MW (kDa) 19 kDa.

Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Val563~Leu670 (NP_001012689.2)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

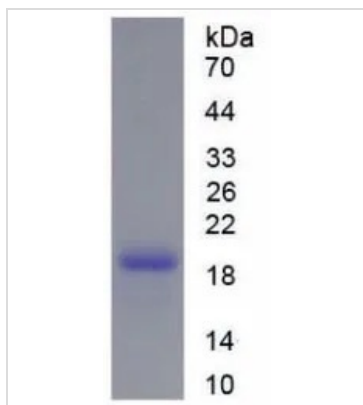
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DATA IMAGES



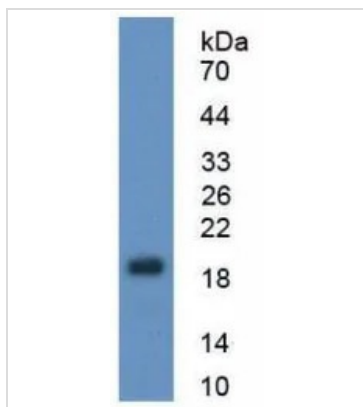
GTX00076-pro Functional Assay Image

Functional ELISA analysis of GTX00076-pro Bovine STAT3 protein which can bind immobilized GPI protein.



GTX00076-pro Image

SDS-PAGE analysis of GTX00076-pro Bovine STAT3 protein.



GTX00076-pro Image

WB analysis of GTX00076-pro Bovine STAT3 protein.



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