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## Product Datasheet

### **Bovine STAT3 protein, His tag, Unconjugated GTX00076-PRO**

Article Name	Bovine STAT3 protein, His tag, Unconjugated
Biozol Catalog Number	GTX00076-PRO
Supplier Catalog Number	GTX00076-pro
Alternative Catalog Number	GTX00076-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Bovine
Conjugation	Unconjugated
NCBI	<a href="#">508541</a>
UniProt	<a href="#">P61635</a>
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, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His-Tag, Val563~Leu670 (NP_001012689.2)

## Application Notes

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