

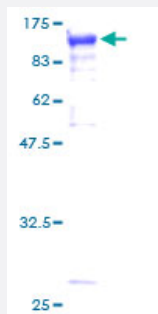
Full-Length

STAT3 (Human) Recombinant Protein (P01)

Catalog # H00006774-P01

Size 25 ug, 10 ug

Applications



Specification

Product Description

Human STAT3 full-length ORF (AAH00627, 1 a.a. - 769 a.a.) recombinant protein with GST-tag at N-terminal.

Sequence

MAQWNQLQQLDTRYLEQLHQLYSDSFPMELRQFLAPWIESQDWAYAASKESHATLVFHNLLGEI
DQQYSRFLQESNVLYQHNLRRIKQFLQSRYLEKPMIARVARCLWEESRLLQTAATAAQGGQA
NHPTAAVVTEKQQMLEQHLQDVRKRVQDLEQKMKVVENLQDDDFDFNYKTLKSQGDMQDLNGN
NQSIVTRQKMQQLEQMLTALDQMRRSIVSELAGLLSAMEYVQKTLTDEELADWKRRQQIACIGGP
PNICLDRLLENWITSLAESQLQTRQQIKKLEELQQKVSYKGDPIVQHRPMLLEERVELFRNLMKSAFV
VERQPCMPMHPDRPLVIKTGVQFTTKVRLLVKFPELNYQLKIKVCIDKDSGDVAALRGSRKFNILG
TNTKVMNMEESNNGSLSAEFKHLTLREQRCGNGGRANCDAVLTEELHLITFETEVYHQGLKIDL
ETHSLPVVISNICQMPNAWASILWYNMLTNNPKNVNFFTKPPIGTWDQVAEVLWSQFSSTTKRG
LSIEQLTTLAEKLLGPGVNYSGCQITWAKFCKENMAGKGFSSFWVWLDNIIDLVKKYILALWNEGYIM
GFISKERERAILSTKPPGTFLRFSESSKEGGVTFTWVEKDISGKTQIQSVEPYTKQQQLNNMSFAEII
MGYKIMDATNILVSPLVLYPDIPKEEAFGKYCRPESQEHPADPGAAPYLKTKFICVTPPTCSNTID
LPMSPRTLDSLMMQFGNNGEGAEPSSAGGQFESLTFDMELTSECATSPM

Host

Wheat Germ (in vitro)

Theoretical MW (kDa)

110.11

Interspecies Antigen Sequence

Mouse (99); Rat (99)

Preparation Method

[in vitro wheat germ expression system](#)

Purification	Glutathione Sepharose 4 Fast Flow
Quality Control Testing	12.5% SDS-PAGE Stained with Coomassie Blue.
Storage Buffer	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Best use within three months from the date of receipt of this protein.

Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

Gene Info — STAT3

Entrez GeneID	6774
GeneBank Accession#	BC000627
Protein Accession#	AAH00627
Gene Name	STAT3
Gene Alias	APRF, FLJ20882, HIES, MGC16063
Gene Description	signal transducer and activator of transcription 3 (acute-phase response factor)
Omim ID	102582
Gene Ontology	Hyperlink

Gene Summary

The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates 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. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Three alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq]

Other Designations

DNA-binding protein APRF|acute-phase response factor|signal transducer and activator of transcription 3

Publication Reference

- [A Model of Differential Mammary Growth Initiation by Stat3 and Asymmetric Integrin-α6 Inheritance.](#)

Edward J Morris, Jordan A Gillespie, Christopher A Maxwell, Shoukat Dedhar.

Cell Reports 2020 Mar; 30(11):3605.

Application: Func, KA, Recombinant proteins

- [Discovery of a small-molecule inhibitor of STAT3 by ligand-based pharmacophore screening.](#)

Leung KH, Liu LJ, Lin S, Lu L, Zhong HJ, Susanti D, Rao W, Wang M, Che WI, Chan DS, Leung CH, Chan PW, Ma DL.

Methods 2015 Jan; 71:38.

Application: WB-Re, Human, HeLa cells

- [KIF5B-RET fusion kinase promotes cell growth by multilevel activation of STAT3 in lung cancer.](#)

Qian Y, Chai S, Liang Z, Wang Y, Zhou Y, Xu X, Zhang C, Zhang M, Si J, Huang F, Huang Z, Hong W, Wang K.

Molecular cancer 2014 Jul; 13:176.

Application: WB-Re, Human, BEAS-2B, A549 cells

Pathway

- [Acute myeloid leukemia](#)
- [Adipocytokine signaling pathway](#)
- [Chemokine signaling pathway](#)
- [Jak-STAT signaling pathway](#)

- [Pancreatic cancer](#)
- [Pathways in cancer](#)

Disease

- [Abortion](#)
- [Asthma](#)
- [Autoimmune Diseases](#)
- [Birth Weight](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Bronchiolitis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colitis](#)
- [Crohn Disease](#)
- [Depressive Disorder](#)
- [Dermatitis](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [DNA Damage](#)
- [Eczema](#)
- [Edema](#)
- [Fatty Liver](#)

- [Genetic Predisposition to Disease](#)
- [Genomic Instability](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hepatitis C](#)
- [Infant](#)
- [Inflammation](#)
- [Inflammatory Bowel Diseases](#)
- [Insulin Resistance](#)
- [Kidney Neoplasms](#)
- [Leukemia](#)
- [Liver Neoplasms](#)
- [Lung Neoplasms](#)
- [Lymphoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Multiple Sclerosis](#)
- [Neoplasm Metastasis](#)
- [Obesity](#)
- [Ovarian Neoplasms](#)
- [Pulmonary Disease](#)
- [Rectal Fistula](#)
- [Respiratory Syncytial Virus Infections](#)
- [Spondylitis](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)

- [Tooth Abnormalities](#)