

Product datasheet for TP313858

OriGene Technologies, Inc.

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STAT1 (NM 007315) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human signal transducer and activator of transcription 1, 91kDa

(STAT1), transcript variant alpha, 20 µg

Species: Human **Expression Host:** HEK293T

Expression cDNA Clone

>RC213858 representing NM 007315 or AA Sequence: Red=Cloning site Green=Tags(s)

MSQWYELQQLDSKFLEQVHQLYDDSFPMEIRQYLAQWLEKQDWEHAANDVSFATIRFHDLLSQLDDQY

FSLENNFLLQHNIRKSKRNLQDNFQEDPIQMSMIIYSCLKEERKILENAQRFNQAQSGNIQSTVMLDKQK ELDSKVRNVKDKVMCIEHEIKSLEDLQDEYDFKCKTLQNREHETNGVAKSDQKQEQLLLKKMYLMLDNK

KEVVHKIIELLNVTELTQNALINDELVEWKRRQQSACIGGPPNACLDQLQNWFTIVAESLQQVRQQLKKL EELEQKYTYEHDPITKNKQVLWDRTFSLFQQLIQSSFVVERQPCMPTHPQRPLVLKTGVQFTVKLRLLVK LQELNYNLKVKVLFDKDVNERNTVKGFRKFNILGTHTKVMNMEESTNGSLAAEFRHLQLKEQKNAGTRT

Ν

EGPLIVTEELHSLSFETQLCQPGLVIDLETTSLPVVVISNVSQLPSGWASILWYNMLVAEPRNLSFFLTP PCARWAQLSEVLSWQFSSVTKRGLNVDQLNMLGEKLLGPNASPDGLIPWTRFCKENINDKNFPFWLWIE

S

ILELIKKHLLPLWNDGCIMGFISKERERALLKDQQPGTFLLRFSESSREGAITFTWVERSQNGGEPDFHA VEPYTKKELSAVTFPDIIRNYKVMAAENIPENPLKYLYPNIDKDHAFGKYYSRPKEAPEPMELDGPKGTG

YIKTELISVSEVHPSRLQTTDNLLPMSPEEFDEVSRIVGSVEFDSMMNTV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

C-Myc/DDK Tag: Predicted MW: 87.2 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

> 80% as determined by SDS-PAGE and Coomassie blue staining **Purity:**

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol





STAT1 (NM_007315) Human Recombinant Protein - TP313858

Bioactivity: Enzyme substrate (PMID: <u>27796300</u>)

Preparation: Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.

Note: For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 009330

 Locus ID:
 6772

 UniProt ID:
 P42224

 RefSeq Size:
 4157

 Cytogenetics:
 2q32.2

 RefSeq ORF:
 2250

Synonyms: CANDF7; IMD31A; IMD31B; IMD31C; ISGF-3; STAT91

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. The protein encoded by this gene can be activated by various ligands including interferon-alpha, interferon-gamma, EGF, PDGF and IL6. This protein mediates the expression of a variety of genes, which is thought to be important for cell viability in response to different cell stimuli and pathogens. The protein plays an

important role in immune responses to viral, fungal and mycobacterial pathogens. Mutations in this gene are associated with Immunodeficiency 31B, 31A, and 31C. [provided by RefSeq,

Jun 2020]

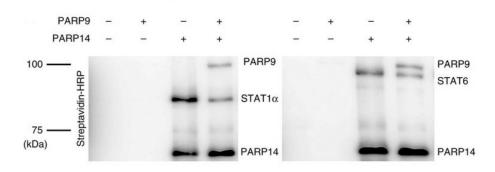
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Chemokine signaling pathway, Jak-STAT signaling pathway, Pancreatic cancer, Pathways in

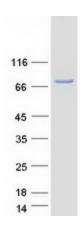
cancer, Toll-like receptor signaling pathway



Product images:



PARP9 inhibits the ADP-ribosylation of STAT1 alpha (OriGene TP313858) and STAT6 by PARP14 through protein ribosylation assay. PARP14 autoribosylation is also indicated. Biotin-labeled ribosylation of STAT1 alpha and STAT6 is detected by Western blot using streptavidin-HRP after SDS-PAGE. Figure cited from Nat Commun, PMID: 27796300



Coomassie blue staining of purified STAT1 protein (Cat# TP313858). The protein was produced from HEK293T cells transfected with STAT1 cDNA clone (Cat# [RC213858]) using MegaTran 2.0 (Cat# [TT210002]).