

Product datasheet for **RC213858**

STAT1 (NM_007315) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	STAT1 (NM_007315) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	STAT1
Synonyms:	CANDF7; IMD31A; IMD31B; IMD31C; ISGF-3; STAT91
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC213858 representing NM_007315
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGTCTCAGTGGTACGAACCTCAGCAGCTTGACTCAAATTCCTGGAGCAGGTTACCAGCTTTATGATG
ACAGTTTTCCCATGGAAATCAGACAGTACCTGGCACAGTGGTTAGAAAAGCAAGACTGGGAGCACGCTGC
CAATGATGTTTCATTTGCCACCATCCGTTTTTCATGACCTCCTGTACAGCTGGATGATCAATATAGTCGC
TTTTCTTTGGAGAATAACTTCTTGCTACAGCATAACATAAGGAAAAGCAAGCGTAATCTTCAGGATAATT
TTCAGGAAGACCAATCCAGATGTCTATGATCATTTACAGCTGTCTGAAGGAAGAAAAGGAAAATTCTGGA
AAACGCCCAGAGATTTAATCAGGCTCAGTCGGGAATATTCAGAGCACAGTGATTTAGACAAAACAGAAA
GAGCTTGACAGTAAAGTCAGAAATGTGAAGGACAAGGTTATGTGTATAGAGCATGAAATCAAGAGCCTGG
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TCAGCTGCAGAACTGGTTCATATAGTTGCGGAGAGTCTGCAGCAAGTTCGGCAGCAGCTTAAAAAGTTG
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TTGCAAGAGCTGAATTAATTTGAAAGTCAAAGTCTTATTTGATAAAGATGTGAATGAGAGAAATACAG
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TTGGGCTCCATCCTTTGGTACAACATGCTGGTGGCGGAACCCAGGAATCTGTCTTCTTCTGACTCCA
CCATGTGCACGATGGGCTCAGCTTTCAGAAAGTGTGAGTTGGCAGTTTTCTTCTGTCCACAAAAGAGGTC
TCAATGTGGACCAGCTGAACATGTTGGGAGAGAAGCTTCTTGGTCTAACGCCAGCCCCGATGGTCTCAT
TCCGTGGACGAGGTTTTGTAAGGAAAATAAAATGATAAAAAATTTCCCTTCTGGCTTTGGATTGAAAGC
ATCCTAGAACTCATTAAAAACACCTGCTCCCTCTCTGGAATGATGGGTGCATCATGGGCTTCATCAGCA
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GTTGAACCTACACGAAGAAAGAACTTTCTGCTGTACTTTCCCTGACATCATTGCAATTACAAAGTCA
TGGCTGCTGAGAAATTCCTGAGAAATCCCTGAAGTATCTGTATCCAAATATTGACAAAGACCATGCCTT
TGGAAAGTATTACTCCAGGCCAAAGGAAGCACCAGAGCCAATGGAACCTTGTGGCCCTAAAGGAAGTGA
TATATCAAGACTGAGTTGATTTCTGTGTCTGAAGTTCACCCTTCTAGACTTCAGACCACAGACAACCTGC
TCCCATGTCTCCTGAGGAGTTTGACGAGGTGTCTCGGATAGTGGGCTCTGTAGAATTCGACAGTATGAT
GAACACAGTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC213858 representing NM_007315
 Red=Cloning site Green=Tags(s)

MSQWYELQQLDKFLQVHQLYDDSPMEIRQYLAQWLEKQDWEHAANDVSFATIRFHDLLSQLDDQYSR
 FSLENNFLLQHNIRKSKRNLDNFQEDPIQMSMIYISCLKEERKILENAQRFNQAQSGNIQSTVMLDKQK
 ELDSKVRNVKDKVMCIEHEIKSLEDLQDEYDFKCKTLQNRHETNGVAKSDQKQEQLLLKKMYLMLDNKR
 KEVVHKIIELLNVTELTQNALINDELVEVKRRQQSACIGGPPNAQLDQLQNWFTIVAESLQQVRRQLKLL
 EELEQKYTYEHPITKNKQVLWDRTFSLFQQLIQSSFVVERQPCMPHPQRPLVLTGVQFTVKLRLLVK
 LQELNYNLKVKVLFDKDVNERNTVKGFRKFNILGTHTKVMNMEESTNGSLAAEFRLQLKEQKNAGTRTN
 EGPLIVTEELHLSLQFETQLCQPLVIDLETTSLPVVVISNVSQPSGWASILWYNMLVAEPRNLSFFLTP
 PCARWAQLSEVLSWQFSSVTKRGLNVDQLNMLGEKLLGPNASPDGLIPWTRFCKENINDKNFPFWLWIES
 ILELIKHLPLWNDGCMGFISKERERALLKQDQPGTFLLRFSESSREGAITFTWVERSQNGGEPDFHA
 VEPYTKKELSAVTFPDIIRNYKVMAAENIPENPKYL YPNIDKDHFAGKYYSRPKEAPEPEMELDGPKGTG
 YIKTELISVSEVHPSRLQTTDNLPLMSPEEFDEVSRIVGSVEFDSMMNTV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6611_c11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

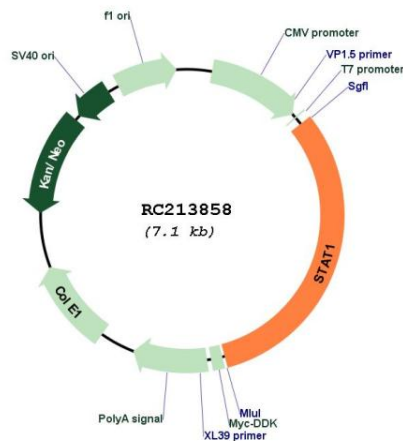
ACCN: NM_007315

ORF Size: 2250 bp

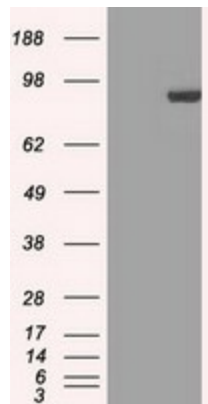
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).</p>
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_007315.4
RefSeq Size:	4157 bp
RefSeq ORF:	2253 bp
Locus ID:	6772
UniProt ID:	P42224
Cytogenetics:	2q32.2
Domains:	SH2, STAT
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
MW:	87.2 kDa

Gene Summary:

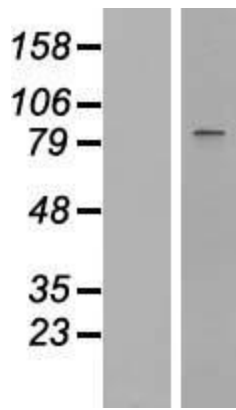
The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. 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]

Product images:


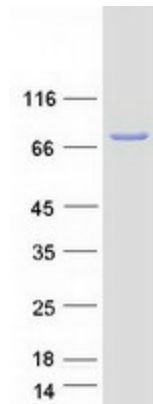
Circular map for RC213858



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY STAT1 (Cat# RC213858, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-STAT1 ([TA500542]).



Western blot validation of overexpression lysate (Cat# [LY416045]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213858 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



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]).