

## Product datasheet for **RC403202**

### **STAT1 (NM\_007315) Human Mutant ORF Clone**

#### **Product data:**

Product Type:	Mutant ORF Clones
Product Name:	STAT1 (NM_007315) Human Mutant ORF Clone
Mutation Description:	Q463H
Affected Codon#:	463
Affected NT#:	1389
Nucleotide Mutation:	STAT1 Mutant (Q463H), Myc-DDK-tagged ORF clone of Homo sapiens signal transducer and activator of transcription 1, 91kDa (STAT1), transcript variant alpha as transfection-ready DNA
Effect:	Impired myoberil immunity
Symbol:	STAT1
Synonyms:	CANDF7; IMD31A; IMD31B; IMD31C; ISGF-3; STAT91
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_007315
ORF Size:	2250 bp
Restriction Sites:	Sgfl-Mlul



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**ORF Nucleotide  
Sequence:**

>RC403202 representing NM\_007315  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

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 ACAGTTTTCCCATGGAAATCAGACAGTACCTGGCACAGTGGTTAGAAAAGCAAGACTGGGAGCACGCTGC  
 CAATGATGTTTCATTTGCCACCATCCGTTTTTCATGACCTCCTGTACAGCTGGATGATCAATATAGTCGC  
 TTTTCTTTGGAGAATAACTTCTTGCTACAGCATAACATAAGGAAAAGCAAGCGTAATCTTCAGGATAATT  
 TTCAGGAAGACCCAATCCAGATGTCTATGATCATTACAGCTGTCTGAAGGAAGAAAGGAAAATTCTGGA  
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 GAACACAGTA

**AGCGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:** >RC403202 representing NM\_007315  
 Red=Cloning site Green=Tags(s)

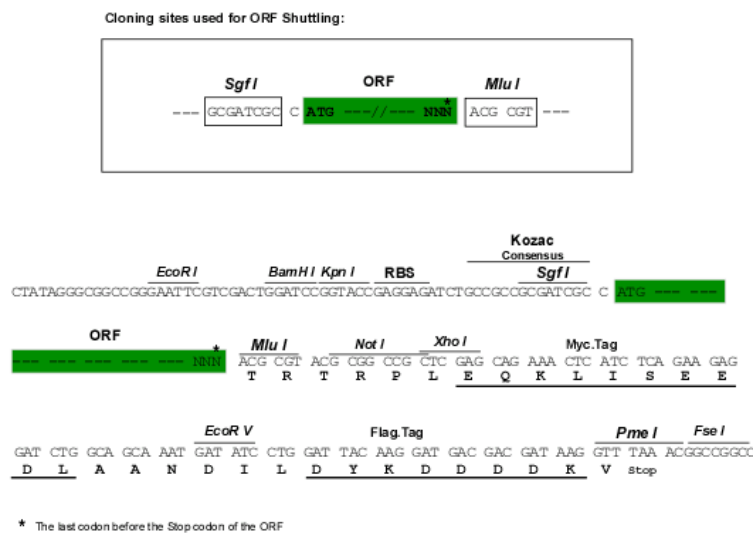
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 PCARWAQLSEVLSWQFSSVTKRGLNVDQLNMLGEKLLGPNASPDGLIPWTRFCKENINDKNFPFWLWIES  
 ILELIKHLPLWNDGCMGFIKERERALLKDQQPGTFLLRFSESSREGAITFTWVERSQNGGEPDFHA  
 VEPYTKKELSAVTFPDIIRNYKMAAENIPENPLKYL YPNIDKDHAFGKYSRPKEAPEPEMELDGPKGTG  
 YIKTELSVSEVHPSRLQTTDNLLPMSPEEFDEVSRIVGSVEFDSMMNTV

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NP_009330</a>
<b>RefSeq Size:</b>	2250 bp
<b>RefSeq ORF:</b>	2253 bp
<b>Locus ID:</b>	6772
<b>Cytogenetics:</b>	2q32.2
<b>Domains:</b>	SH2, STAT
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Chemokine signaling pathway, Jak-STAT signaling pathway, Pancreatic cancer, Pathways in cancer, Toll-like receptor signaling pathway
<b>MW:</b>	82.5 kDa
<b>Gene Summary:</b>	<p>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]</p>