

## Product datasheet for **RC201075**

### **STAT1 (NM\_139266) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	STAT1 (NM_139266) 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:

>RC201075 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCTCAGTGGTACGAACCTCAGCAGCTTGACTCAAATTCCTGGAGCAGGTTACCAGCTTTATGATG  
ACAGTTTTCCCATGGAAATCAGACAGTACTGGCACAGTGGTTAGAAAAGCAAGACTGGGAGCACGCTGC  
CAATGATGTTTCATTTGCCACCATCCGTTTTTCATGACCTCCTGTACAGCTGGATGATCAATATAGTCGC  
TTTTCTTTGGAGAATAACTTCTTGCTACAGCATAACATAAGGAAAAGCAAGCGTAATCTTCAGGATAATT  
TTCAGGAAGACCAATCCAGATGTCTATGATCATTACAGCTGTCTGAAGGAAGAAAAGGAAAATTCTGGA  
AAACGCCCAGAGATTTAATCAGGCTCAGTCGGGAATATTCAGAGCACAGTGATTTAGACAAAACAGAAA  
GAGCTTGACAGTAAAGTCAGAAATGTGAAGGACAAGGTTATGTGTATAGAGCATGAAATCAAGAGCCTGG  
AAGATTTACAAGATGAATATGACTTCAAATGCAAAACCTTGACAGAACAGAGAACACGAGACCAATGGTGT  
GGCAAAGAGTGATCAGAAACAAGAACAGCTGTTACTCAAGAAGATGTATTTAATGCTTGACAATAAGAGA  
AAGGAAGTAGTTCACAAAATAATAGAGTTGCTGAATGTCACTGAACTTACCCAGAATGCCCTGATTAATG  
ATGAACTAGTGGAGTGGAGCGGAGACAGCAGAGCGCCTGTATTGGGGGGCCGCCAATGCTTGCTTGGA  
TCAGCTGCAGAACTGGTTCATAATGCTGCGGAGAGTCTGCAGCAAGTTCGGCAGCAGCTTAAAAAGTTG  
GAGGAATTGGAACAGAAATACACCTACGAACATGACCCTATCACAAAAACAAACAAGTGTATGGGACC  
GCACCTCAGTCTTTCCAGCAGCTCATTAGAGCTCGTTTGGTGGAAAGACAGCCCTGCATGCCAAC  
GCACCTCAGAGCCGCTGGTCTTGAAGACAGGGTCCAGTTCAGTGTGAAGTTGAGACTGTTGGTGA  
TTGCAAGAGCTGAATTAATTTGAAAGTCAAAGTCTTATTTGATAAAGATGTGAATGAGAGAAATACAG  
TAAAAGGATTTAGGAAGTTCAACATTTTGGGCACGCACACAAAAGTGATGAACATGGAGGATCCACCAA  
TGGCAGTCTGGCCGCTGAATTTCCGCACCTGCAATTTGAAAGAACAGAAAAATGCTGGCACCAGAACGAAT  
GAGGGTCTCTCATCGTTACTGAAGAGCTTCACTCCCTTGTGTTTGAACCCAATTGTGCCAGCCTGGTT  
TGGTAATTGACCTCGAGACGACCTCTCTGCCGTTGTGGTGTCTCCAACGTGAGCCAGCTCCCAGCGG  
TTGGGCTCCATCCTTTGGTACAACATGCTGGTGGCGGAACCCAGGAATCTGTCTTCTTCTGACTCCA  
CCATGTGCACGATGGGCTCAGCTTTCAGAAGTGTGAGTTGGCAGTTTTCTTCTGTCCACAAAAGAGGTC  
TCAATGTGGACCAGCTGAACATGTTGGGAGAGAAGCTTCTTGGTCTAACGCCAGCCCCGATGGTCTCAT  
TCCGTGGACGAGGTTTTGTAAGGAAAATAAAATGATAAAAAATTTCCCTTCTGGCTTTGGATTGAAAGC  
ATCCTAGAACTCATTAAAAACACCTGCTCCCTCTCTGGAATGATGGGTGCATCATGGGCTTCATCAGCA  
AGGAGCGAGAGCGTGCCCTGTTGAAAGACAGCAGCCGGGGACCTTCTGCTGCGGTTCACTGAGAGCTC  
CCGGAAGGGGCCATCACATTCACATGGGTGGAGCGGTCCGAGAACGGAGGCGAACCTGACTTCCATGCG  
GTTGAACCTACACGAAGAAAGAACTTTCTGCTGTACTTTCCCTGACATCATTGCAATTACAAAGTCA  
TGGCTGCTGAGAAATTCCTGAGAAATCCCTGAAGTATCTGTATCCAAATATTGACAAAGACCATGCCTT  
TGGAAAGTATTACTCCAGGCCAAAGGAAGCACCAGAGCCAATGAACTTGATGGCCCTAAAGGAAGTGA  
TATATCAAGACTGAGTTGATTTCTGTGTCTGAAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC201075 protein sequence  
 Red=Cloning site Green=Tags(s)

MSQWYELQQLDSKFLEQVHQLYDDSPMEIRQYLAQWLEKQDWEHAANDVSFATIRFHDLLSQLDDQYSR  
 FSLENNFLLQHNIRKSKRNLQDNFQEDPIQMSMIYISCLKEERKILENAQRFNQAQSGNIQSTVMLDKQK  
 ELDSKVRNVKDKVMCIEHEIKSLEDLQDEYDFKCKTLQNRHETNGVAKSDQKQEQLLLKKMYLMLDNKR  
 KEVVHKIIELLNVTELTONALINDELVEWKRRQQSACIGGPPNACLDQLQNWFTIVAESLQQVRRQLKLL  
 EELEQKYTYEHPITKNKQVLWDRTFSLFQQLIQSSFVVERQPCMPHPQRPLVLTGVQFTVKLRLLVK  
 LQELNYNLKVKVLFDKDVNERNTVKGFRKFNILGTHTKVMNMEESTNGSLAAEFRHLQLKEQKNAGTRTN  
 EGPLIVTEELHLSLFETQLCQPLVIDLETTSLPVVVISNVSQPSGWASILWYNMLVAEPRNLSFFLTP  
 PCARWAQLSEVLSWQFSSVTKRGLNVDQLNMLGEKLLGPNASPDGLIPWTRFCKENINDKNFPFWLWIES  
 ILELIKHLPLWNDGCMGFISKERERALLKDQQPGTFLLRFSESSREGAITFTWVERSQNGGEPDFHA  
 VEPYTKKELSAVTFPDIIRNYKVMAAENIPENPLKYL YPNIDKDHFAGKYYSRPKEAPEMELDGPKGTG  
 YIKTELSVSEV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6209\\_h01.zip](https://cdn.origene.com/chromatograms/mk6209_h01.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\_139266

**ORF Size:** 2136 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** 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).

**Reconstitution Method:**

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\\_139266.2](#)

**RefSeq Size:** 2798 bp

**RefSeq ORF:** 2139 bp

**Locus ID:** 6772

**UniProt ID:** [P42224](#)

**Cytogenetics:** 2q32.2

**Domains:** SH2, STAT

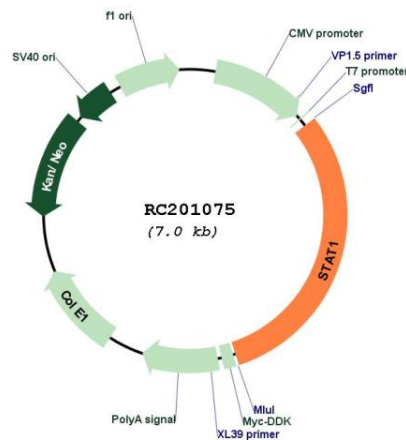
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Chemokine signaling pathway, Jak-STAT signaling pathway, Pancreatic cancer, Pathways in cancer, Toll-like receptor signaling pathway

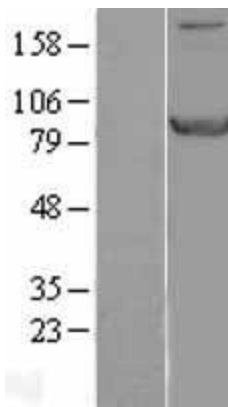
**MW:** 83 kDa

**Gene Summary:**

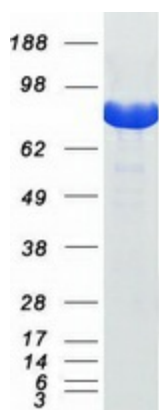
The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. 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 RC201075



Western blot validation of overexpression lysate (Cat# [LY408329]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201075 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STAT1 protein (Cat# [TP301075]). The protein was produced from HEK293T cells transfected with STAT1 cDNA clone (Cat# RC201075) using MegaTran 2.0 (Cat# [TT210002]).