

## Product datasheet for **MG227265**

### Stat3 (NM\_213659) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Stat3 (NM_213659) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Stat3
Synonyms:	1110034C02Rik; A; Aprf; AW109958
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227265 representing NM\_213659  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTCAGTGGAAACAGCTGCAGCAGCTGGACACACGCTACCTGGAGCAGCTGCACCAGCTGTACAGCG  
 ACAGCTTCCCATGGAGCTGCGGCAGTTCTGGCACCTTGGATTGAGAGTCAAGACTGGGCATATGCAGC  
 CAGCAAAGAGTCACATGCCACGTTGGTGTTCATAATCTCTGGGTGAAATTGACCAGCAATATAGCCGA  
 TTCCTGCAAGAGTCCAATGTCCTCTATCAGCACAACTTCGAAGAATCAAGCAGTTTCTGCAGAGCAGGT  
 ATCTTGAGAAGCCAATGGAAATTGCCCGGATCGTGGCCGATGCCTGTGGGAAGAGTCTCGCCTCTCCA  
 GACGGCAGCCACGGCAGCCAGCAAGGGGGCCAGGCCAACCCCAACAGCCGCCGTAGTGACAGAGAAG  
 CAGCAGATGTTGGAGCAGCATCTCAGGATGTCCGGAAGCGAGTGCAGGATCTAGAACAGAAAATGAAGG  
 TGGTGGAGAACCCTCAGGACGACTTTGATTTCACTACAAAACCTCAAGAGCCAAGGAGACATGCAGGA  
 TCTGAATGGAACAACCACTCTGTGACCAGACAGAAGATGCAGCAGCTGGAACAGATGCTCACAGCCCTG  
 GACCAGATGCGGAGAAGCATTGTGAGTAGCTGGCGGGGCTCTTGTGAGCAATGGAGTACGTGCAGAAGA  
 CACTGACTGATGAAGAGCTGGCTGACTGGAAGAGGCGGCAGCAGATCGCGTGCATCGGAGGCCCTCCCAA  
 CATCTGCCTGGACCGTCTGGAAAACCTGGATAAATTATTAGCAGAATCTCAACTTCAGACCCGCCAACAA  
 ATTAAGAAAACCTGGAGGAGCTGCAGCAGAAAAGTGTCTACAAGGGCGACCCATCGTGCAGCACCGGCCCA  
 TGCTGGAGGAGAGGATCGTGGAGCTGTTAGAAAATTAATGAAGAGTGCCTTCGTGGTGGAGCGGCAGCC  
 CTGCATGCCCATGCACCCGACCGGCCCTTAGTCATCAAGACTGGTGTCCAGTTTACCACGAAAGTCAGG  
 TTGCTGGTCAAATTTCTGAGTTGAATTATCAGCTTAAATTAAGTGTGCATTGATAAAGACTCTGGGG  
 ATGTTGCTGCCCTCAGAGGGTCTCGGAAATTTAACATTCTGGGCACGAACACAAAAGTGAATGAACATGGA  
 GGAGTCTAAACAACGGCAGCCTGTCTGCAGAGTTCAAGCACCTGACCCCTTAGGGAGCAGAGATGTGGGAAT  
 GGAGGCCGTGCCAATTGTGATGCCTCCTTGATCGTGACTGAGGAGCTGCACCTGATCACCTTCGAGACTG  
 AGGTGTACCACCAAGGCCTCAAGATTGACCTAGAGACCCACTCCTTGCCAGTTGTGGTGTCTCCAACAT  
 CTGTGAGATGCCAAATGCTTGGGCATCAATCCTGTGGTATAACATGCTGACCAATAACCCCAAGAACGTG  
 AACTTCTTCACTAAGCCGCAATTGGAACCTGGACCAAGTGGCCGAGGTGCTCAGCTGGCAGTTCTCGT  
 CCACCACCAAGCGGGGGCTGAGCATCGAGCAGCTGACAACGCTGGCTGAGAAGCTCCTAGGGCCTGGTGT  
 GAACTACTCAGGGTGTGAGATCACATGGGCTAAATTTGCAAAGAAAACATGGCTGGCAAGGGCTTCTCC  
 TTCTGGGTCTGGCTAGACAATATCATCGACCTTGTGAAAAGTATATCTTGGCCCTTTGGAATGAAGGGT  
 ACATCATGGGTTTCATCAGCAAGGAGCGGGAGCGGCCATCCTAAGCACAAAGCCCCGGGCACCTTCTCT  
 ACTGCGCTTCAGCGAGAGCAGCAAAGAAGGAGGGGTCACTTTCCTTGGGTGGAAAAGGACATCAGTGGC  
 AAGACCCAGATCCAGTCTGTAGAGCCATACACCAAGCAGCAGCTGAACAACATGTCATTTGCTGAAATCA  
 TCATGGGCTATAAGATCATGGATGCGACCAACATCCTGGTGTCTCCACTTGTCTACCTCTACCCCGACAT  
 TCCCAAGGAGGAGGCATTTGAAAGTACTGTAGGCCCGAGAGCCAGGAGCACCCGAAGCCGACCCAGGT  
 AGTGCTGCCCGTACCTGAAGACCAAGTTCATCTGTGTGACACCAACGACCTGCAGCAATACCATTGACC  
 TGCCGATGTCCCCCGCACTTTAGATTCATTGATGCAGTTTGGAAATAACGGTGAAGGTGCTGAGCCCTC  
 AGCAGGAGGGCAGTTTGAGTCGCTCACGTTTGACATGGATCTGACCTCGGAGTGTCTACCTCCCCCATG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG227265 representing NM\_213659  
 Red=Cloning site Green=Tags(s)

MAQWNQLQQLDTRYLEQLHQLYSDSFPMELRQFLAPWIESQDWAYAASKESHATLVFHNLLGEIDQQYSR  
 FLQESNVLQHNLRRIKQFLQSRYLEKPMIARIVARCLWEESRLLQTAATAAQGGQANHPTAAVVTEK  
 QQMLEQHLQDVRKRVQDLEQKMKVVENLQDDDFNFYKTLK SQGDMQDLNGNNSVTRQKMQLEQMLTAL  
 DQMRRSIVSELAGLLSAMEYVQKTLTDEELADWKRRQIQIACIGGPPNICLDRLLENWITSLAESQLQTRQQ  
 IKKLEELQQKVS YKGDPIVQHRPML EERIVELFRNL MKSAFVVERQPCMPMHPDRPLVIKTGVQFTTKVR  
 LLVKFPELNYQLKIKVCIDKDSGDVAALRGRKFNILGNTNKVMNMEESNNGSLSAEFKHLTLREQRCGN  
 GGRANCDASLIVTEELHLITFETEYVHQGLKIDLETHSLPVVVISNICQMPNAWASILWYNMLTNNPKNV  
 NFFTKPPIGTWDQVAEVL SWQFSSTTKRGLSIEQLTTLAEKLLGPGVNYSGCQITWAKFCKENMAGKGS  
 FWWLDNIIDL VKKYILALWNEGYIMGFISKERERAILSTKPPGTFLRFSESSKEGGVTFWVEKDISG  
 KTQIQSVEPYTKQLNNMSFAEIIIMGYKIMDATNILVSPLVYL YPDIPKEEAFGKYCRPESQEHPEADPG  
 SAAPYLKTKFICVPTTCSNTIDL PMSPRTLDSLMOFGNGGEGAEP SAGGQFESLTFDMDLTSECATSPM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_213659

ORF Size: 2310 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\\_213659.3](#)

**RefSeq Size:** 4487 bp

**RefSeq ORF:** 2313 bp

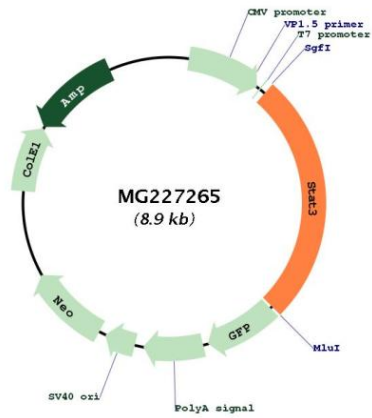
**Locus ID:** 20848

**UniProt ID:** [P42227](#)

**Cytogenetics:** 11 63.82 cM

**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. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Sep 2015]

Product images:



Circular map for MG227265