

## Product datasheet for **RC215836**

### STAT3 (NM\_139276) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	STAT3 (NM_139276) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	STAT3
Synonyms:	ADMIO; ADMIO1; APRF; HIES
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC215836 representing NM\_139276  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCCAATGGAATCAGCTACAGCAGCTTGACACACGGTACCTGGAGCAGCTCCATCAGCTCTACAGTG  
 ACAGCTTCCCAATGGAGCTGCGGCAGTTTCTGGCCCTTGGATTGAGAGTCAAGATTGGGCATATGCGGC  
 CAGCAAAGAATCACATGCCACTTTGGTGTTCATAATCTCCTGGGAGAGATTGACCAGCAGTATAGCCGC  
 TTCCTGCAAGAGTCGAATGTTCTCTATCAGCACAATCTACGAAGAATCAAGCAGTTTCTTCAGAGCAGGT  
 ATCTTGAGAAGCCAATGGAGATTGCCGGATTGTGGCCGGTGCCTGTGGGAAGAATCACGCCTTCTACA  
 GACTGCAGCCACTGCGGCCAGCAAGGGGGCCAGGCCAACCCCCACAGCAGCCGTGGTACGGAGAAG  
 CAGCAGATGCTGGAGCAGCACCTCAGGATGTCCGGAAGAGAGTGCAGGATCTAGAACAGAAAATGAAAG  
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 GACCAGATGCGGAGAAGCATCGTGAGTGAGCTGGCGGGGCTTTTGTACGGATGGAGTACGTGCAGAAAA  
 CTCTCACGGACGAGGAGCTGGCTGACTGGAAGAGGCGGCAACAGATTGCCTGCATTGGAGGCCCGCCCAA  
 CATCTGCCTAGATCGGCTAGAAAAGTGGATAACGTCATTAGCAGAATCTCAACTTCAGACCCGTCACAA  
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 TGCTGGAGGAGAGAATCGTGGAGCTGTTTGAAGAACTTAATGAAAAGTGCCTTTGTGGTGGAGCGGCAGCC  
 CTGCATGCCCATGCATCCTGACCGGCCCTCGTCATCAAGACCGGCGTCCAGTTCCTACTAAAGTCAGG  
 TTGCTGGTCAAATCCCTGAGTTGAATTATCAGCTTAAATTAAGTGTGATTGACAAAAGACTTGGGG  
 ACGTTGCAGCTCTCAGAGGATCCCGGAAATTTAACATTCTGGGCACAAACACAAAAGTGAACATGGA  
 AGAATCCAACAACGGCAGCCTCTCTGCAGAATTAACACTTTGACCCTGAGGGAGCAGAGATGTGGGAAT  
 GGGGGCCGAGCCAATTGTGATGCTTCCCTGATTGTGACTGAGGAGCTGCACCTGATCACCTTTGAGACCG  
 AGGTGTATCACCAAGGCCTCAAGATTGACCTAGAGACCCACTCCTTGCCAGTTGTGGTGTCTCCAACAT  
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 GCTAAGATTCAAGTAAAGCAGCAAGAAGGAGGGCTCACTTTCACTTGGGTGGAGAAGGACATCAGCGGT  
 AAGACCCAGATCCAGTCCGTGGAACCATACACAAGCAGCAGCTGAACAACATGTCATTTGCTGAAATCA  
 TCATGGGCTATAAGATCATGGATGCTACCAATATCCTGGTGTCTCCACTGGTCTATCTCTATCCTGACAT  
 TCCAAGGAGGAGGCATTCGAAAGTATTGTGGCCAGAGAGCCAGGAGCATCCTGAAGCTGACCCAGGT  
 AGCGCTGCCCCATACCTGAAGACCAAGTTTATCTGTGTGACACCAACGACCTGCAGCAATACCATTGACC  
 TGCCGATGTCCCCCGCACTTTAGATTCAATTGATGCAGTTTGGAAATAATGGTGAAGGTGCTGAACCCCTC  
 AGCAGGAGGGCAGTTTGAGTCCCTCACCTTTGACATGGAGTTGACCTCGGAGTGCCTACCTCCCCCATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC215836 representing NM\_139276  
Red=Cloning site Green=Tags(s)

MAQWNQLQQLDTRYLEQLHQLYSDSFPMELRQFLAPWIESQDWAYAASKESHATLVFHNLGGEIDQQYSR  
 FLQESNVLYQHNLRRIKQFLQSRYLEKPMIARIVARCLWEESRLLQTAATAAQGGQANHPTAAVVTEK  
 QQMLEQHLQDVRKRVQDLEQKMKVVENLQDDDFNYKTLK SQGDMQDLNGNNSVTRQKMQQLEQMLTAL  
 DQMRRSIVSELAGLLSAMEYVQKTLTDEELADWKRRQQIACIGGPPNICLDRLNWTSLAESQLQTRQQ  
 IKKLEELQQKVSYKGDPIVQHRPMLLEERIVELFRNLKMSAFVVERQPCMPMHPDRPLVIKTGVQFTTKVR  
 LLVKFPELNYQLKIKVCIDKDSGDVAALRGRKFNILGNTKVMNMEESNNGSLSAEFKHLTLREQRGN  
 GGRANCASLIVTEELHLITFETEVYHQGLKIDLETHSLPVVVISNICQMPNAWASILWYNMLTNNPKNV  
 NFFTKPPIGTWDQVAEVLWQFSSTTKRGLSIEQLTTLAEKLLGPGVNYSGCQITWAKFCKENMAGKGS  
 FWWLDNIIDL VKKYILALWNEGYIMGFISKERERAILSTKPPGTFLRFSESSKEGGVTFWVEKDISG  
 KTQIQSVEPYTKQLNNSFAEIIIMGYKIMDATNILVSPLVYL YPDIPKEEAFGKYCRPESQEHPEADPG  
 SAAPYLKTKFICVPTTCSNTIDL PMSPRTLDSL MQFGNGEGAEPSAGGQFESLTFDMELTSECATSPM

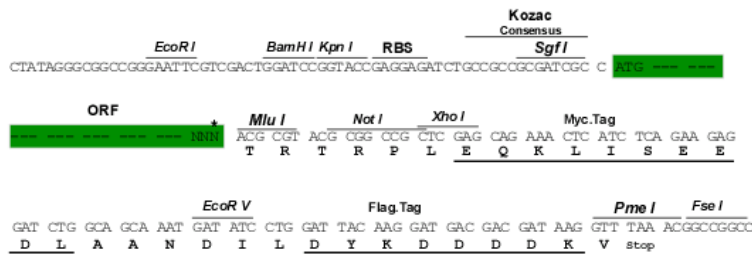
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2770\\_g01.zip](https://cdn.origene.com/chromatograms/mg2770_g01.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

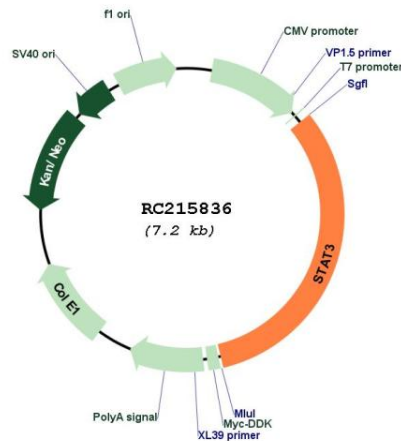
**ACCN:** NM\_139276

**ORF Size:** 2310 bp

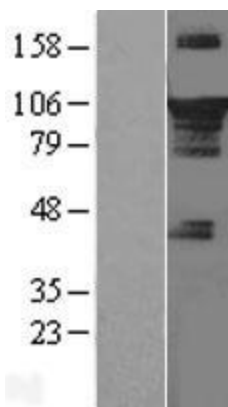
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts 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>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<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>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_139276.3</a>
<b>RefSeq Size:</b>	4978 bp
<b>RefSeq ORF:</b>	2313 bp
<b>Locus ID:</b>	6774
<b>UniProt ID:</b>	<a href="#">P40763</a>
<b>Cytogenetics:</b>	17q21.2
<b>Domains:</b>	SH2, STAT
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	Acute myeloid leukemia, Adipocytokine signaling pathway, Chemokine signaling pathway, Jak-STAT signaling pathway, Pancreatic cancer, Pathways in cancer
<b>MW:</b>	87.9 kDa

**Gene Summary:**

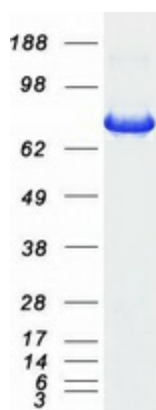
The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. 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. This gene also plays a role in regulating host response to viral and bacterial infections. Mutations in this gene are associated with infantile-onset multisystem autoimmune disease and hyper-immunoglobulin E syndrome. [provided by RefSeq, Aug 2020]

**Product images:**


Circular map for RC215836



Western blot validation of overexpression lysate (Cat# [LY408332]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215836 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STAT3 protein (Cat# [TP315836]). The protein was produced from HEK293T cells transfected with STAT3 cDNA clone (Cat# RC215836) using MegaTran 2.0 (Cat# [TT210002]).