

Product datasheet for **RC212394**

STAT3 (NM_213662) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	STAT3 (NM_213662) 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:

>RC212394 representing NM_213662
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCCAATGGAATCAGCTACAGCAGCTTGACACACGGTACCTGGAGCAGCTCCATCAGCTCTACAGTG
 ACAGCTTCCCAATGGAGCTGCGGCAGTTTCTGGCCCTTGGATTGAGAGTCAAGATTGGGCATATGCGGC
 CAGCAAAGAATCACATGCCACTTTGGTGTTCATAATCTCCTGGGAGAGATTGACCAGCAGTATAGCCGC
 TTCCTGCAAGAGTCGAATGTTCTCTATCAGCACAATCTACGAAGAATCAAGCAGTTTCTTCAGAGCAGGT
 ATCTTGAGAAGCCAATGGAGATTGCCCGGATTGTGGCCCGTGCCTGTGGGAAGAATCACGCCTTCTACA
 GACTGCAGCCACTGCGGCCAGCAAGGGGGCCAGGCCAACCCCCACAGCAGCCGTGGTACGGAGAAG
 CAGCAGATGCTGGAGCAGCACCTCAGGATGTCCGGAAGAGAGTGCAGGATCTAGAACAGAAAATGAAAG
 TGGTAGAGAATCTCCAGGATGACTTTGATTTCAACTATAAAACCCTCAAGAGTCAAGGAGACATGCAAGA
 TCTGAATGGAACAACCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGT
 GACCAGATGCGGAGAAGCATCGTGAGTGAAGTGGCGGGCTTTTGTGAGGATGGAGTACGTGCAGAAAA
 CTCTCACGGACGAGGAGCTGGCTGACTGGAAGAGGCGGCAACAGATTGCCTGCATTGGAGGCCCGCCCAA
 CATCTGCCTAGATCGGCTAGAAAAGTGGATAACGTCATTAGCAGAATCTCAACTTCAGACCCGTCACAA
 ATTAAGAAAAGTGGAGGAGTTGCAGCAAAAAGTTTCTACAAAAGGGGACCCCATTTGACAGCACCGGCCGA
 TGCTGGAGGAGAGAATCGTGGAGCTGTTTGAAGTAAATGAAAAGTGCCTTTGGTGGAGCGGCAGCC
 CTGCATGCCATGCATCCTGACCGGCCCTCGTCATCAAGACCGCGTCCAGTTCCTACTAAAGTCAAG
 TTGCTGGTCAAATCCCTGAGTTGAATTATCAGCTTAAATTAAGTGTGATTGACAAAAGACTTGGGG
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 AGAATCCAACAACGGCAGCCTCTCTGCAGAATCAAACTTGACCCTGAGGGAGCAGAGATGTGGGAAT
 GGGGGCCGAGCCAATTGTGATGCTTCCCTGATTGTGACTGAGGAGCTGCACCTGATCACCTTTGAGACCG
 AGGTGTATCACCAAGGCCTCAAGATTGACCTAGAGACCCACTCCTTGCCAGTTGTGGTGTCTCCAACAT
 CTGTGAGATGCCAAATGCCTGGGCGTCCATCCTGTGGTACAACATGCTGACCAACAATCCAAGAATGTA
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 CCACCACCAAGCGAGGACTGAGCATCGAGCAGCTGACTACACTGGCAGAGAACTCTTGGGACCTGGTGT
 GAATTATTCAGGGTGTGAGATCACATGGGCTAAATTTTCAAAGAAAACATGGCTGGCAAGGGCTTCTCC
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 GCTAAGATTCAAGTAAAGCAGCAAGAAGGAGGGCTCACTTTCACTTGGGTGGAGAAGGACATCAGCGGT
 AAGACCCAGATCCAGTCCGTGGAACCATACAAAAGCAGCAGCTGAACAACATGTCATTTGCTGAAATCA
 TCATGGGCTATAAGATCATGGATGCTACCAATATCCTGGTGTCTCCACTGGTCTATCTCTATCCTGACAT
 TCCAAGGAGGAGGATTCGAAAGTATTGTGGCCAGAGAGCCAGGAGCATCCTGAAGCTGACCCAGGT
 AGCGCTGCCCCATACCTGAAGACCAAGTTTATCTGTGTGACACCATTATTGATGCAGTTTGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212394 representing NM_213662
Red=Cloning site Green=Tags(s)

MAQWNQLQQLDTRYLEQLHQLYSDSFPMELRQFLAPWIESQDWAYAASKESHATLVFHLLGEIDQQYSR
 FLQESNVL YQHNLRRIKQFLQSRYLEKPMIARIVARCLWEESRLLQTAATAAQGGQANHPTAAVVTEK
 QQMLEQHLQDVRKRVQDLEQKMKVVENLQDDDFNYKTLK SQGDMQDLNGNNSVTRQKMQQLEQMLTAL
 DQMRRSIVSELAGLLSAMEYVQKTLTDEELADWKRRQQIACIGGPPNICLDRLNENWITSLAESQLQTRQQ
 IKKLEELQQKVS YKGDPIVQHRPML EERIVELFRNLMKSAFVVERQPCMPMHPDRPLVIKTGVQFTTKVR
 LLVKFPELNYQLKIKVCIDKDSGDVAALRGRKFNILGNTNKVMNMEESNNGSLSAEFKHLTLREQRGN
 GGRANCASLIVTEELHLITFETEVYHQGLKIDLETHSLPVVVISNICQMPNAWASILWYNMLTNNPKNV
 NFFTKPPIGTWDQVAEVL SWQFSSTTKRGLSIEQLTTLAEKLLGPGVNYSGCQITWAKFCKENMAGKGS
 FWWLDNIIDL VKKYILALWNEGYIMGFISKERERAILSTKPPGTFLRFSESSKEGGVTFTWKEKDISG
 KTQIQSVEPYTKQLNNSFAEIIIMGYKIMDATNILVSPLVYL YPDIPKEEAFGKYCRPESQEHPEADPG
 SAAPYLKTKFICVTPFIDAVWK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6162_b10.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_213662

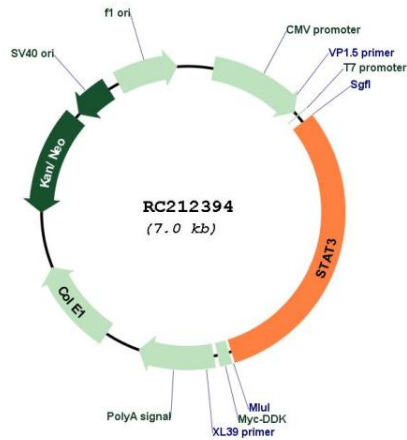
ORF Size: 2166 bp

OTI Disclaimer: 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](#)

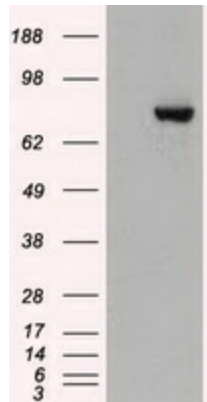
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_213662.2
RefSeq Size:	4819 bp
RefSeq ORF:	2169 bp
Locus ID:	6774
UniProt ID:	P40763
Cytogenetics:	17q21.2
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Acute myeloid leukemia, Adipocytokine signaling pathway, Chemokine signaling pathway, Jak-STAT signaling pathway, Pancreatic cancer, Pathways in cancer
MW:	82.9 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]

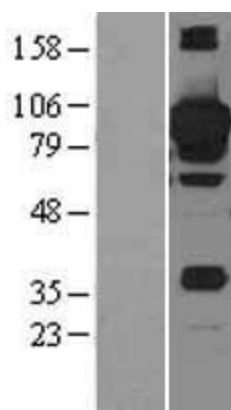
Product images:



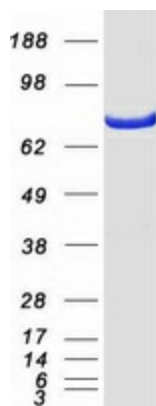
Circular map for RC212394



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY STAT3 (Cat# RC212394, 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-STAT3 (Cat# [TA500177]). Positive lysates [LY403728] (100ug) and [LC403728] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403728]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212394 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STAT3 protein (Cat# [TP312394]). The protein was produced from HEK293T cells transfected with STAT3 cDNA clone (Cat# RC212394) using MegaTran 2.0 (Cat# [TT210002]).