

Product datasheet for **SC309567**

STAT3 (NM_003150) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	STAT3 (NM_003150) Human Untagged Clone
Tag:	Tag Free
Symbol:	STAT3
Synonyms:	ADMIO; ADMIO1; APRF; HIES
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_003150 edited
 GGATCCTGGACAGGCACCCCGGCTTGGCGCTGTCTCTCCCCTCGGCTCGGAGAGGCCCT
 TCGGCCTGAGGGAGCCTCGCCGCCCGTCCCCGGCACACGCGCAGCCCGGCTCTCGGCC
 TCTGCCGAGAAACAGGATGGCCCAATGGAATCAGCTACAGCAGCTTGACACACGGTACC
 TGGAGCAGCTCCATCAGCTCTACAGTGACAGCTTCCCAATGGAGCTGCGGCAGTTTCTGG
 CCCCTTGGATTGAGAGTCAAGATTGGGCATATGCGGCCAGCAAAGAATCATATGCCACTT
 TGGTGTTCATAATCTCCTGGGAGAGATTGACCAGCAGTATAGCCGCTTCTGCAAGAT
 CGAATGTTCTCTATCAGCACAACTACGAAGAATCAAGCAGTTTCTTTCAGAGCAGGTATC
 TTGAGAAGCCAATGGAGATTGCCCGGATTGTGGCCCGGTGCCTGTGGGAAGAATCACGCC
 TTCTACAGACTGCAGCCACTGCGGCCAGCAAGGGGGCCAGGCCAACCACCCACAGCAG
 CCGTGGTGACGGAGAAGCAGCAGATGCTGGAGCAGCACCTTCAGGATGTCGGAAGAGAG
 TGCAGGATCTAGAACAGAAAATGAAAGTGGTAGAGAATCTCCAGGATGACTTTGATTTCA
 ACTATAAAACCCTCAAGAGTCAAGGAGACATGCAAGATCTGAATGAAAACAACAGTCAG
 TGACCAGGCAGAAGATGCAGCAGCTGGAACAGATGCTCACTGCGCTGGACCAGATGCGGA
 GAAGCATCGTGAGTGAGCTGGCGGGCTTTTGTACGCGATGGAGTACGTGCAGAAAACCTC
 TCACGGACGAGGAGCTGGCTGACTGGAAGAGGCGCAACAGATTGCCTGCATTGGAGGCC
 CGCCCAACATCTGCCTAGATCGGCTAGAAAACCTGGATAACGTCATTAGCAGAATCTCAAC
 TTCAGACCCGTCACAAATTAAGAAAACCTGGAGGAGTTGCAGCAAAAAGTTTCTACAAAAG
 GGGACCCCATTTGACAGCACCGGCCGATGCTGGAGGAGAGAATCGTGGAGCTGTTTAGAA
 ACTTAATGAAAAGTGCCTTTGTGGTGGAGCGGCAGCCCTGCATGCCCATGCATCTGACC
 GGCCCTCGTCATCAAGACCGCGTCCAGTTCTACTACTAAAGTCAAGTTGCTGGTCAAAT
 TCCCTGAGTTGAATTATCAGCTTAAAATTAAGTGTGCATTGACAAGACTCTGGGGACG
 TTGCAGCTCTCAGAGGATCCCCGAAATTTAACATTCTGGGCACAAACAAAAAGTATGA
 ACATGGAAGAATCCAACAACGGCAGCCTCTCTGAGAATTCAAAACACTTGACCCTGAGGG
 AGCAGAGATGTGGGAATGGGGGCGAGCCAATTGTGATGCTTCCCTGATTGTGACTGAGG
 AGCTGCACCTGATCACCTTTGAGACCGAGGTGTATCACCAAGGCCTCAAGATTGACCTAG
 AGACCCACTCCTTGCCAGTTGTGGTGATCTCCAACATCTGTGAGATGCCAAATGCCTGGG
 CGTCCATCCTGTGGTACAACATGCTGACCAACAATCCCAAGAATGTAACCTTTTTTACCA
 AGCCCCAATTGGAACCTGGGATCAAGTGGCCGAGGTCTGAGCTGGCAGTTCTCCTCCA
 CCACCAAGCGAGGACTGAGCATCGAGCAGCTGACTACACTGGCAGAGAACTCTTGGGAC
 CTGGTGTGAATTATTCAGGGTGTGAGATCAGATGGGCTAAATTTTCAAAGAAAACATGG
 CTGGCAAGGGCTTCTCCTTCTGGGTCTGGCTGGACAATATCATTGACCTTGTGAAAAAGT
 ACATCCTGGCCCTTTGGAACGAAGGGTACATCATGGGCTTTATCAGTAAGGAGCGGGAGC
 GGGCCATCTTGAGCACTAAGCCTCCAGGCACCTTCTGCTAAGATTCAAGTAAAGCAGCA
 AAGAAGGAGGCGTCACTTCACTTGGGTGGAGAAGGACATCAGCGGTAAGACCCAGATCC
 AGTCCGTGGAACCATACACAAAGCAGCAGCTGAACAACATGTCATTTGCTGAAATCATCA
 TGGGCTATAAGATCATGGATGCTACCAATATCCTGGTGTCTCCACTGGTCTATCTCTATC
 CTGACATTTCCCAAGGAGGAGGCATTCGGAAGTATTGTGCGCCAGAGAGCCAGGAGCATC
 CTGAAGCTGACCCAGGCGCTGCCCATACCTGAAGACCAAGTTTATCTGTGTGACACCAA
 CGACCTGCAGCAATACCAATTGACCTGCCGATGTCCCCCGCACTTTAGATTCATTGATGC
 AGTTTGGAAATAATGGTGAAGGTGCTGAACCTCAGCAGGAGGGCAGTTTGTGATCCTCA
 CCTTTGACATGGAGTTGACCTCGGAGTGCCTACCTCCCCATGTGAGGAGCTGAGAACG
 GAAGCTGCAGAAAGATACGACTGAGGCGCTACCTGCATTCTGCCACCCCTCACACAGCC
 AAACCCAGATCATCTGAACTACTAATTTTGTGGTTCCAGATTTTTTTTAACTCTCTAC
 TTCTGCTATCTTTGAGCAATCTGGGCACTTTTAAAAATAGAGAAATGAGTAAAAA
 AAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_003150

Insert Size: 2700 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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.
RefSeq:	<u>NM_003150.3, NP_003141.2</u>
RefSeq Size:	4953 bp
RefSeq ORF:	2310 bp
Locus ID:	6774
UniProt ID:	<u>P40763</u>
Cytogenetics:	17q21.2
Domains:	SH2, STAT
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

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]

Transcript Variant: This variant (2) differs in the 5' UTR and uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. The encoded isoform (2) is shorter than isoform 1.