

Product datasheet for **RC211136**

NFAT2 (NFATC1) (NM_172390) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT2 (NFATC1) (NM_172390) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NFAT2
Synonyms:	NF-ATC; NF-ATc1.2; NFAT2; NFATc
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC211136 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAAGCACCAGCTTTCCAGTCCCTTCCAAGTTTCCACTTGGCCCTGCGGCTGCGGTCTTCGGGAGAG
 GAGAAACTTTGGGGCCCGCCGCGCGCCGGCGCACCATGAAGTCAGCGGAGGAAGAACAATATGGCTA
 TGATCCTCCAACGTCAGCCCGCCCTGCGCTCCCCACGGCGCACTCCACCCTGCCGGCCCGTGCCAC
 AACCTTCAGACTCCACACCGGGCATCATCCCGCCGGCGGATCACCCCTCGGGGTACGGGGCAGCTTTGG
 ACGGTGGGCCCGGGCTACTTCTCTCTCCGGCCACACCAGGCCTGATGGGGCCCTGCCCTGGAGAG
 TCCTCGCATCGAGATAACCTCGTGCTTGGGCTGTACCACAACAATAACCAGTTTTTCCACGATGTGGAG
 GTGAAGAGCTCCTCCCTAGCTCCAACGGTCCCCCTCCACGGCCACGCTGAGTCTGCCAGCCTGGAGG
 CCTACAGAGACCCTCGTGCCTGAGCCCGCCAGCAGCCTGTCTCCGGAGCTGCAACTCAGAGGCCTC
 CTCTACGAGTCCAATACTACTCGTACCCGTACGCGTCCCCCAGAGCTCGCATGGCAGTCTCCCTGCGTG
 TCTCCAAAGACCAGGACCCCGAGGAGGGCTTTCCCGCGGGCTGGGGCCCTGCACACTGCTGGGTCCCG
 CGCGGCACTCCCCCTCCACCTCGCCCGCGCCAGCGTCACTGAGGAGAGCTGGTGGGTGCCCGCTCCTC
 CAGACCCGCGTCCCCGTGCAACAAGAGGAAGTACAGCCTCAACGGCCGGCAGCCGCCCTACTCACCCAC
 CACTCGCCACGCGTCCCCGCACGGCTCCCCGCGGGTCAAGCTGACCGAGCTCGTGGTTGGCAACA
 CCACCCAGTACACCAGCTCGGCCATCGTGGCCGCATCAACGCGTGACCAACGACAGCAGCCTGGACCT
 GGGAGATGGCGTCCCTGTCAAGTCCCGCAAGACCACCTGGAGCAGCCGCCCTCAGTGGCGCTCAAGGTG
 GAGCCCGTGGGGAGGACCTGGGCAGCCCCCGCCCGGGCCGACTTCGCGCCGAAGACTACTCCTCTT
 TCCAGCAGTACAGGAAGGGCGGCTTCTGCGACAGTACCTGGCGGTGCCGAGCAGCCCTACCAGTGGGC
 GAAGCCCAAGCCCTGTCCCTACGTCTACATGAGCCCGACCCTGCCCGCCCTGGACTGGCAGCTGCCG
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 CGGAGGGCAGCCGGGGGCGCTGAAGGCGTGGCCGGAGGACACCCCATCGTGCAGCTGCATGGCTACTT
 GGAGAATGAGCCGCTGATGCTGCAGTTTTTATTGGGACGGCGGACGACCCGCTGCTGCGCCGCACGCG
 TTCTACCAGGTGCACCGCATCACAGGGAAGACCGTGTCCACCACAGCCACGAGGCCATCCTCTCCAACA
 CCAAAGTCTGGAGATCCCACTCCTGCCGAGAACAGCATGCGAGCCGTCATTGACTGTGCCGAATCCT
 GAAACTCAGAACTCCGACATTGAATTCGAAAGGAGAGACGGACATCGGGAGGAAGAACAACCGGTA
 CGGCTGGTGTTCGCGTTCAGTCCCGCAACCCAGCGCCGCACGCTGTCCCTGCAGGTGGCTCCAACC
 CCATCGAATGCTCCAGCGCTCAGCTCAGGAGTGCCCTGTTGGAGAAGCAGAGCAGGACAGCTATCC
 GGTCTGGGGGGGAAGAAGATGGTCTGTCTGGCCACAATTCCTGCAGGACTCCAAGGTCAATTTTCGTG
 GAGAAAGCCCGAGATGGCCACCATGTCTGGGAGATGGAAGCGAAAATGACCGGGACCTGTGCAAGCCGA
 ATCTCTGGTGGTTGAGATCCCGCATTTCGGAATCAGAGGATAACCAGCCCGTTCACGTCAGTTTCTA
 CGTCTGCAACGGGAAGAGAAAGCGAAGCCAGTACCAGCGTTTACCTACCTTCCCGCCAACGTAACGCC
 ATCTTTTAACCGTAAGCCGTGAACATGAGCGCGTGGGGTGTCTTTTC

AGCGGACCGACGCGTACGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211136 protein sequence
 Red=Cloning site Green=Tags(s)

MPSTSFVPVPSKFPLGPAAAVFRGETLGPAPRAGGTMKSAEEEHYGYASSNVSPALPLPTAHSTLPAPCH
 NLQTSTPGIIPPADHPSGYGAALDGGPAGYFLSSGHTRPDGALESPRIEITSLGLYHNNNQFFHDVE
 VEDVLPSSKRSPSTATLSLPSLEAYRDPSCSPASSLSSRSCNSEASSYESNYSYPYASPQTSWQSPCV
 SPKTTDPEEGFPRGLGACTLLGSPRHSPSTSPRASVTEESWLGARSSRPASPCNKRKYSLNGRQPPYSPH
 HSPTSPHGSPPRVSVTDDSWLGNNTQYSSAIVAAINALTTDSSLDLGDGVPVKSRTTLEQPPSVALKV
 EPVGEDLGSPPPPADFAPEDYSSFQHIRKGGFCQQLAVPQHPYQWAKPKPLSPTSYSMPTLPALDWQLP
 SHSGPYELRIEVQPKSHHRAHYETEGSRGAVKASAGGHPVQLHGYLENEPLMLQLFIGTADDRLLRPHA
 FYQVHRITGKTVSTTSHEAAILSNKVKLEIPLLPENSMRAVIDCAGILKLRNSDIELRKGETDIGRKNTRV
 RLVFRVHVHPQPSGRTLSQLVASNPICQSQRSAQELPLVEKQSTDSYPVVGKKMVLSGHNFQDSKVIIFV
 EKAPDGHVWEMEAKTDRDLCKPNLVEIPFRNQRITSPVHVSFYVCNGKRRKRSQYQRFYLPANGNA
 IFLTVSREHERVGCFF

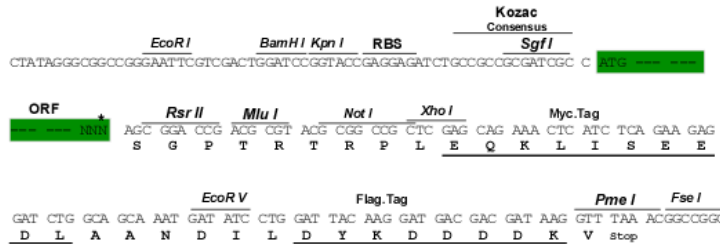
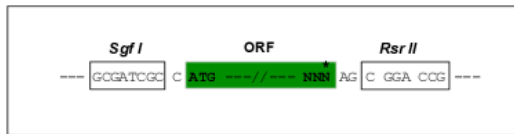
SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6185_a11.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

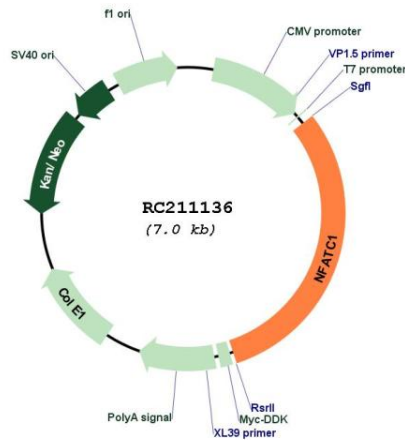
ACCN: NM_172390

ORF Size: 2148 bp

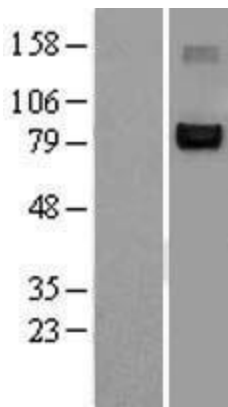
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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 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:	<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_172390.3
RefSeq Size:	2978 bp
RefSeq ORF:	2151 bp
Locus ID:	4772
UniProt ID:	O95644
Cytogenetics:	18q23
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Axon guidance, B cell receptor signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway
MW:	77.8 kDa

Gene Summary:

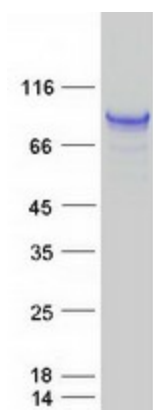
The product of this gene is a component of the nuclear factor of activated T cells DNA-binding transcription complex. This complex consists of at least two components: a preexisting cytosolic component that translocates to the nucleus upon T cell receptor (TCR) stimulation, and an inducible nuclear component. Proteins belonging to this family of transcription factors play a central role in inducible gene transcription during immune response. The product of this gene is an inducible nuclear component. It functions as a major molecular target for the immunosuppressive drugs such as cyclosporin A. Multiple alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene. Different isoforms of this protein may regulate inducible expression of different cytokine genes. [provided by RefSeq, Jul 2013]

Product images:


Circular map for RC211136



Western blot validation of overexpression lysate (Cat# [LY403545]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211136 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NFATC1 protein (Cat# [TP311136]). The protein was produced from HEK293T cells transfected with NFATC1 cDNA clone (Cat# RC211136) using MegaTran 2.0 (Cat# [TT210002]).