

Product datasheet for **RC215180**

NFAT1 (NFATC2) (NM_012340) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NFAT1 (NFATC2) (NM_012340) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NFAT1
Synonyms:	NFAT1; NFATP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC215180 representing NM_012340
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAACGCCCCCGAGCGGCAGCCCAACCCGACGGCGGGGACGCCCCAGGCCACGAGCCTGGGGCAGCC
 CCCAAGACGAGCTTGACTTCTCCATCCTCTCGACTATGAGTATTGAATCCGAACGAAGAAGAGCCGAA
 TGACATAAAGTTCGCGAGCCACCTCCGGACCCGCATACCCCGATGATGTCCTGGACTATGGCCTCAAG
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 CCAGCAGCTGCGCTGCGGAAGCCACCAGGATTCAGCACATCATGTAAGTGCAGAAATTCGACACCAGGC
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 GACACACACCTTAGCTGGATAAAAAACATATTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGAT AAGGTTTAA

Protein Sequence: >RC215180 representing NM_012340
 Red=Cloning site Green=Tags(s)

MNAPERQPQPDGGDAPGHEPGGSPQDELDF SILFDYEYLNPEEPEPNAHKVASPPSGPAYPDDVLDYGLK
 PYSPLASLSGEPGRFGEPDRVGPQKFL SAAKPAGASGLSPRIEITPSHEL IQAVGLRMRDAGLLVEQP
 PLAGVAASPRFTLPVPGFEGYREPLCLSPASSGSSASFISDTFSPYTPCVSPNNGGPDLLCPQFQNI
 HYSPTSPIMSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHS CAEALVALPPGASPQRSRSPSPQPS
 SHVAPQDHGSPAGYPPVAGSAVIMDALNSLATDSPCGIPPKMWTSPDPSPVSAAPSAGLPRHIYPAVE
 FLGPCEQGERRNSAPESILLVPPTWPKPLVPAIPICSIPTASLPLEWPLSSQSGSYELRIEVQPKPHH
 RAHYETEGSRGAVKAPTGGHPVVQLHGYMENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTTSYE
 KIVGNTKYLEIPLPKNNMRATIDCAGILKLRNADIELRKGETDIGRKNTRVRLVFRVHIPESSGRIVSL
 QTASNPIECSQRSHELPMVERQDTSCLVYGGQQMILTGQNF TSESKVVFEKTTDGGQI WEMEATVDK
 DKSQPNMLFVEIPEYRNKHIRTVPKVN FYVINGKRKRSQPQHFTYHPVPAIKTEPTDEYDPTLICSP
 THGLG SQPYYPQHMPVAESPSCLVATMAPCQCFRTGLSSPDARYQQQNPAAVLYQRSKLSPLSLG
 YQQPALMAAPLSLADAHRSVLVHAGSQGSSALLHPSPTNQQASPVIIHYSPTNQQLRCGSHQEFQ
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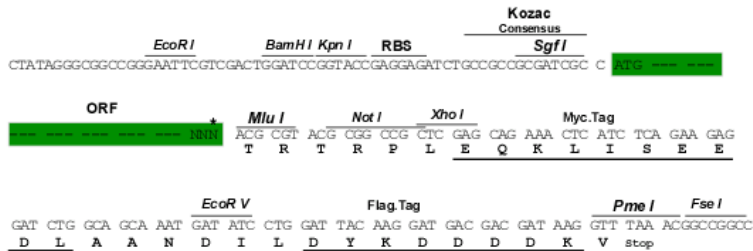
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4152_g02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

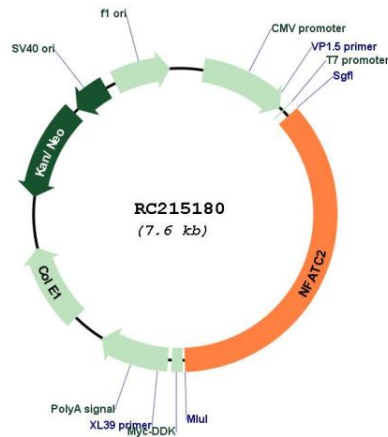
ACCN: NM_012340

ORF Size: 2763 bp

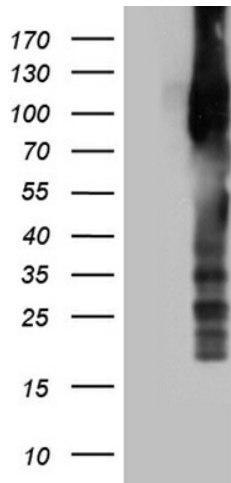
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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_012340.5
RefSeq Size:	3254 bp
RefSeq ORF:	2766 bp
Locus ID:	4773
UniProt ID:	Q13469
Cytogenetics:	20q13.2
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Axon guidance, B cell receptor signaling pathway, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway
MW:	99.6 kDa

Gene Summary:

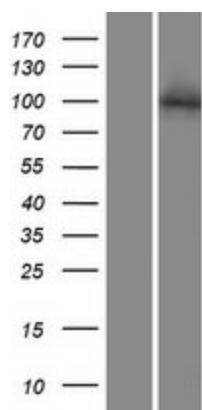
This gene is a member of the nuclear factor of activated T cells (NFAT) family. The product of this gene is a DNA-binding protein with a REL-homology region (RHR) and an NFAT-homology region (NHR). This protein is present in the cytosol and only translocates to the nucleus upon T cell receptor (TCR) stimulation, where it becomes a member of the nuclear factors of activated T cells transcription complex. This complex plays a central role in inducing gene transcription during the immune response. Alternate transcriptional splice variants encoding different isoforms have been characterized. [provided by RefSeq, Apr 2012]

Product images:


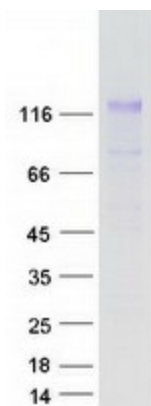
Circular map for RC215180



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NFATC2 (Cat# RC215180, 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-NFATC2 rabbit polyclonal antibody (Cat# [TA890161]).



Western blot validation of overexpression lysate (Cat# [LY415797]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215180 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NFATC2 protein (Cat# [TP315180]). The protein was produced from HEK293T cells transfected with NFATC2 cDNA clone (Cat# RC215180) using MegaTran 2.0 (Cat# [TT210002]).