

## Product datasheet for **RC204249**

### **NFX1 (NM\_002504) Human Tagged ORF Clone**

#### Product data:

|                           |                                                                   |
|---------------------------|-------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                               |
| Product Name:             | NFX1 (NM_002504) Human Tagged ORF Clone                           |
| Tag:                      | Myc-DDK                                                           |
| Symbol:                   | NFX1                                                              |
| Synonyms:                 | NFX2; TEG-42; Tex42                                               |
| Mammalian Cell Selection: | Neomycin                                                          |
| Vector:                   | pCMV6-Entry (PS100001)                                            |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                              |
| ORF Nucleotide Sequence:  | >RC204249 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGAGGCGCCTCTGTCTCAGGACTTTTAAATTCAATACAGATGCTGCTGAATTCATTCTCAGG  
AGAAAAAAATCTGGTCTAAATGTGGGACTCAAAGGAGACTAGACTCTAATAGGATTGGTAGAAGAAA  
TTACAGTTCACCACTCCCTGTACCTTTCCAGGCAGGTCCTTATGATGAAATCTCTGTGTTTCATCAG  
CATAGTTATCATCCGTGAGGAAGCAAACCTAAGAGTCAGCAGACGCTTTCCAGTCCTCTCCTTGAATA  
AATCGCCCAAGAGCCATGGCCTTCAGAATCAACCTTGGCAGAAATTGAGGAATGAGAAGCACCATATCAG  
AGTCAAGAAAGCACAGAGTCTTGCTGAGCAGACCTCAGATACAGCTGGATTAGAGAGCTCGACCAGATCA  
GAGAGTGGGACAGACCTCAGAGAGCATAGTCCTTCTGAGAGTGAGAAGGAAGTTGTGGGTGCAGATCCCA  
GGGGAGCAAAACCAAAAAAGCAACACAGTTTGTATACAGCTATGGTAGAGGACCAAAAGTCAAGGGGAA  
ACTCAATGTGAATGGAGTAACCGAACAACCTCCAAACCGGAGGATGCTGGACCCGAAAGTACCAAACT  
GTGGGGGTTTTCCACCTGACTCTTCAGAGGCATCCTCTAGAAAAGGAGTATTGGATGGGTATGGAGCCA  
GACGAAATGAGCAGAGAAGATACCCACAGAAAAGGCCTCCCTGGGAAGTGGAGGGGGCCAGGCCACGACC  
AGGCAGAAATCCACCAAAACAGGAGGGGCCACCGACATACAAACGCAGGACACAGAAACAACATGGGCCCC  
ATTCCAAAGGATGACCTCAATGAAAGACCAGCAAAATCTACCTGTGACAGTGAGAACTTGGCAGTCATCA  
ACAAGTCTTCCAGGAGGGTTGACCAAGAGAAATGCACTGTACGGAGGCAGGATCCCTCAAGTAGTATCTCC  
TTTCTCCCGAGGCAAAACAGAACCATGTGCTAAAGAATGTGGAACGCACACAGGTTCTCTAATTGAACAA  
CTAACAACAGAAAAATACGAGTGCATGGTGTGCTGTGAATTGGTTCGTGTACGGCCCCAGTGTGGAGTT  
GTCAGAGCTGTTACCATGTGTTTCATTTGAAGTGCATAAAGAAATGGGCAAGGTCTCCAGCATCTCAAGC  
AGATGGCCAGAGTGGTTGGAGGTGCCCTGCCTGTCAGAATGTTTCTGCACATGTTCTAATACCTACACT  
TGTTTCTGTGGCAAGGTAAGAAATCCTGAGTGGAGCAGAAATGAAATCCACATAGCTGTGGTGAGGTTT  
GTAGAAAGAAACAGCCTGGCCAGGACTGCCACATTCTGTAACTTCTCTGCCATCCAGGACCCTGCC  
ACCCTGCCCTGCCTTTATGACAAAACATGTGAATGTGGACGAACAGGCACACAGTTTCGCTGTGGTCAG



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GCTGTCTCAGTCCACTGTTCTAACCCATGTGAGAATATTTGAACTGTGGTCAGCACCACTGTGCTGAGC  
TGTGCCATGGGGGTCACTGCCAGCCTTGCCAGATCATTTTGAACCAGGTATGCTATTGCGGCAGCACCTC  
CCGAGATGTGTTATGTGGAACCGATGTAGGAAAGTCTGATGGATTTGGGGATTTAGCTGTTTAAAGATA  
TGTGGCAAGGACTTGAATGCGGTAAACCATACATGTTGCGAAGTGTGCCACCTCAGCCCTGCCAGCAAT  
GCCCACGGCTCCCCAGCTGGTGCCTGTTGCCCTGTGGCCAACTCCTCTCAGCAATTGCTAGAACT  
TGAAGTAGTAGTCGGAACATGCATGGACCTGTGCCTTCATGTGAAAAGTGTGCGGCAAGCCTCTG  
CCTTGTGGTTCCTTAGATTTTATTACATACCTGTGAAAAGCTCTGCCATGAAGGAGACTGTGGACCATGCT  
CTCGCACATCAGTTATTTCTGCAGATGCTCTTTCAGAAACAAAGGAGCTTCCATGTACCAGTCTCAAAAG  
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CTGCCATTGTGGTGCATCAGTGATTTACCTCCAGTTCCTGTGGTACTAGGCCCTGAATGTACCCAA  
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TAATTACCAAAAAGGAAGTTTATCAAGCCAGGCTGGAGTGTGATGAGGAGTGTTCAGCCTTGAAAGGAA  
AAAGAGATTAGCAGAGGCATTTATATCAGTGAGGATTCTGATCCTTTCAATATACGTTCTTCAGGTCA  
AAATTCAGTGATAGTTTGAAGAAGATGCCAGGAAGGACTTAAAGTTTGTGAGTACGTTGAGAAGGAAA  
TGGAAACCTCGTGGAGCCGTGAATAAGGGAAGAATAGTAAGAAAAGCCACAGCTTCCCTCCCATGAA  
CAGAGACCACCGCGGATCATCATGACTTGGCCCAAGTTTATGGCCTGGAGAGCGTGAGCTATGACAGT  
GAACCGAAGCGCAATGTGGTGGTCACTGCCATCAGGGGAAGTCCGTTTGTCTCTACCACGCTGACAG  
GTGTGCTTGAAGGGAAATGCAGGCACGGCTCCACCACGATTCTCATCAGACATCAGTCAGACAA  
GAATCCTGGGAGCAGTAATTTACAGAAAATAACCAAGGAGCCAATAATTGACTATTTGACGTCCAGGAC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC204249 protein sequence

Red=Cloning site Green=Tags(s)

MAEAPPVSGTFKFNDAEAFIPQEKNSGLNCGTQRRLDNRIGRRNYSSPPCHLSRQVPYDEISAVHQ  
HSYHPSGSKPKSQQTSFQSSPCNKSPKSHGLQNQPWQKLREKHHIRVKKAQSLAEQTSDTAGLESSTRS  
ESGTDLREHSPSESEKEVVGADPRGAKPKKATQFVYSYGRGPKVKGLKCEWSNRRTTPKPEDAGPESTKP  
VGVFHPDSSEASSRKGVLDTGARRNEQRRYPQKRPPWEVEGARPRPGRNPPKQEGHRHTNAGHRNMG  
IPKDDLNERPAKSTCDSENLAIVINKSSRRVDQEKCTVRRQDPQVVSFSGKQNHVLLKNVETHTGSLIEQ  
LTTEKYECMVCCELVRVTAPVWSCQSCYHVFHLNCIKKWARSASQADGQSGWRCPACQNVSAHVNTYT  
CFCGKVKNPWEWSRNEIPHSCGEVCRKKQPGQDCPHSCNLLCHPGPCPPCPAFMTKTCEGGRTRHTVRCGQ  
AVSVHCSNPCENILNCGQHQAELCHGGQCQPCQIILNQVCYCGSTSRLDVLCGTDVKGSDGFGDFSLKI  
CGKDLKCGNHTCSQVCHPQPCQCPRLPQLVRCCPCGQTPLSQLLELGSSSRKTCMDPVPCGKVCCKPL  
PCGSLDFIHTCEKLCHEGDCGPCSRTSVISCRCSFRTELCTSLKSEDAFMCDKRCNKKRLCGRHKCN  
EICCVDKEHKCLICGRKLRCGLHRCCEPCHRGNCQTCWQASFDELTCGASVIYPPVPCGTRPPECTQ  
TCARVHECDHPVYHSCHEEKCPPTFLTQKWCMDGHEFRSNIPCHLVDISGLPCSATLPCGMHCKQRL  
CHKGECLVDEPKQPCPTTPRADCGHPCMAPCHTSSPCPVTACKAKVELQCEGRRKEMVICSEASTYQR  
IAAISMASKITDMLGGSVEISKLITKKEVHQAARLEDECSALERKKRLAEAFHISEDSPFNIRSSGS  
KFSDSLKEDARKDLKFVSDVEKEMETLVEAVNKGKNSKSHSFPMPNRDHRRIIHDLAQVYGLESVSYS  
EPKRNVVTAIRGKSVCPPTTLTGVLEREMQARPPPIPHHRHQSDKNPGSSNLQKITKEPIIDYFDVQD

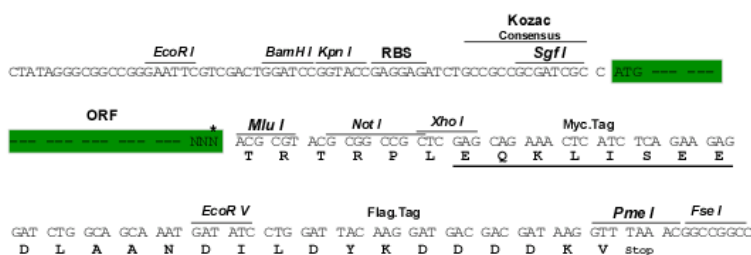
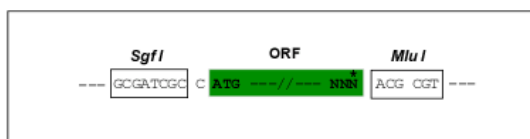
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6204\\_e08.zip](https://cdn.origene.com/chromatograms/mk6204_e08.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 002504

ORF Size: 3360 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:**

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\\_002504.6](#)

RefSeq Size: 4721 bp

RefSeq ORF: 3363 bp

Locus ID: 4799

UniProt ID: [Q12986](#)

Cytogenetics: 9p13.3

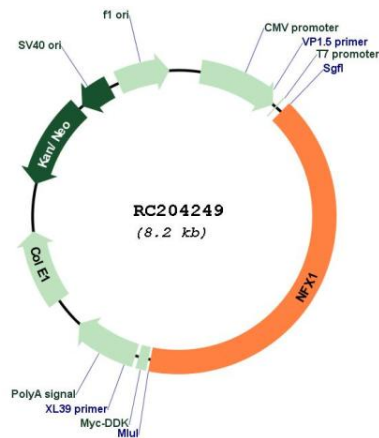
Domains: zf-NF-X1, R3H

Protein Families: Druggable Genome, Transcription Factors

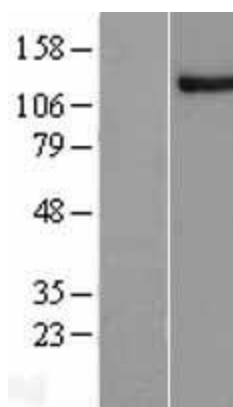
MW: 124.4 kDa

**Gene Summary:** MHC class II gene expression is controlled primarily at the transcriptional level by transcription factors that bind to the X and Y boxes, two highly conserved elements in the proximal promoter of MHC class II genes. The protein encoded by this gene is a transcriptional repressor capable of binding to the conserved X box motif of HLA-DRA and other MHC class II genes in vitro. The protein may play a role in regulating the duration of an inflammatory response by limiting the period in which class II MHC molecules are induced by IFN-gamma. Three alternative splice variants, each of which encodes a different isoform, have been identified. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RC204249



Western blot validation of overexpression lysate (Cat# [LY400892]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204249 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).