

## Product datasheet for RC227517

### Nuclear Factor Erythroid Derived 2 (NFE2) (NM\_001136023) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nuclear Factor Erythroid Derived 2 (NFE2) (NM_001136023) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nuclear Factor Erythroid Derived 2
Synonyms:	NF-E2; p45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227517 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCTCCGTGTCTCCAGCAGAGCAGGAACAGGGTGATACAGCTGTCCACTTCAGAGCTAGGAGAGA  
TGGAACTGACTTGGCAGGAGATCATGTCCATCACCGAGCTGCAGGGTCTGAATGCTCCAAGTGAGCCATC  
ATTTGAGCCCAAGCCCCAGCTCCATACCTTGGACCTCCACCACCACAATTACTGCCCTGCTCAATC  
CACCCAGATTCTGGCTTCCCACTTCTCCACCACCTTATGAGCTCCAGCATCCACATCCCATGTCCAG  
ATCCCCATACTCCTATGGCAACATGGCCATACCAGTCTCAAGCCACTGAGCCTCTCAGGCCTGCTCAG  
TGAGCCGCTCCAAGACCCCTTAGCCCTCCTGGACATTGGGCTGCCAGCAGGGCCACCTAAGCCCCAAGAA  
GACCCAGAATCCGACTCAGGATTATCCCTCAACTATAGCGATGCTGAATCTCTTGAGCTGGAGGGGACAG  
AGGCTGGTCGGCGGCGCAGCGAATATGTAGAGATGTACCCAGTGGAGTACCCCTACTCACTCATGCCAA  
CTCCTTGGCCCACTCCAATACTTGGCAGCTGCTGAGACCCCTTGGCCTTAGAGCCCTCCTCAGGC  
CCTGTGCGGGCTAAGCCCACTGCACGGGGGAGGCAGGGAGTCCGGATGAACGTCGGGCCTTGGCCATGA  
AGATTCCTTTTCTACGGACAAGATTGTCAACTTGCCGGTAGATGACTTTAATGAGCTATTGGCAAGGTA  
CCCCTGACAGAGAGCCAGCTAGCGTAGTCCGGGACATCCGACGACGGGGCAAAAACAAGTGCCAGCC  
CAGAAGTCCGCAAGAGGAAGCTGGAAACCATTTGTCAGCTGGAGCGGGAGCTGGAGCGGCTGACCAATG  
AACGGGAGCGGCTTCTCAGGGCCCGGGGAGGCAGACCGGACCTGGAGGTCATGCGCCAACAGCTGAC  
AGAGCTGTACCGTACATTTTCCAGCACCTTCGGGATGAATCAGGCAACGCTACTCTCCTGAAGAGTAC  
GCGCTGCAACAGGCTGCCGATGGGACCATCTTCTTGTGCCCCGGGGACCAAGATGGAGGCCACAGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC227517 protein sequence  
Red=Cloning site Green=Tags(s)

MSPCPPQQRNRVIQLSTSELGEMELTWQEIMSITELQGLNAPSEPSFEPQAPAPYLGPPPPTYCPCSI  
 HPDSGFPLPPPPYELPASTSHVPDPYSGNMAIPVSKPLSLGLLSEPLQDPLALLDIGLPAGPPKPQE  
 DPESDSSLNYSDAESLELEGTEAGRRRSEYVEMYPVEYPYSLMPNSLAHSNYTLPAAE TPLALEPSSG  
 PVRAKPTARGEAGSRDERRALAMKIPFPDKIVNLPVDDFNELLARYPLTESQLALVRDIRRRGKNKVAA  
 QNCRKRKLETIVQLERELERLTNERERLLRARGEADRTLEV MRQQLTEL YRDI FQHLRDESGNSYSPEEY  
 ALQQAADGTIFLVPRGTKMEATD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6152\\_d09.zip](https://cdn.origene.com/chromatograms/mk6152_d09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001136023

**ORF Size:** 1119 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.

**RefSeq:** [NM\\_001136023.3](#)

**RefSeq Size:** 1698 bp

**RefSeq ORF:** 1122 bp

**Locus ID:** 4778

**UniProt ID:** [Q16621](#)

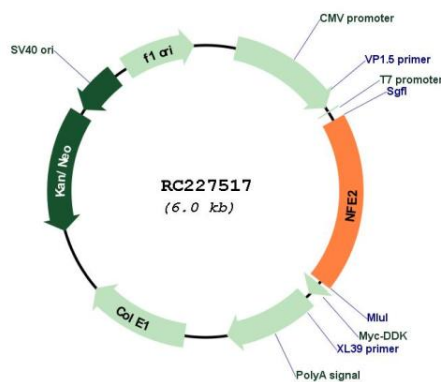
**Cytogenetics:** 12q13.13

**Protein Families:** Transcription Factors

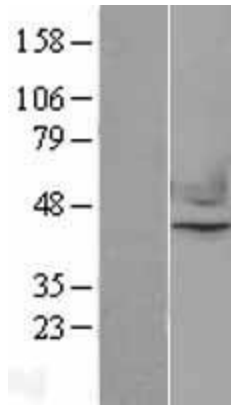
**MW:** 41.5 kDa

**Gene Summary:** Component of the NF-E2 complex essential for regulating erythroid and megakaryocytic maturation and differentiation. Binds to the hypersensitive site 2 (HS2) of the beta-globin control region (LCR). This subunit (NFE2) recognizes the TCAT/C sequence of the AP-1-like core palindrome present in a number of erythroid and megakaryocytic gene promoters. Requires MAFK or other small MAF proteins for binding to the NF-E2 motif. May play a role in all aspects of hemoglobin production from globin and heme synthesis to procurement of iron. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC227517



Western blot validation of overexpression lysate (Cat# [LY427772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227517 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).