

Product datasheet for **RG233907**

Nuclear Factor Erythroid Derived 2 (NFE2) (NM_001261461) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nuclear Factor Erythroid Derived 2 (NFE2) (NM_001261461) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: NFE2
Synonyms: NF-E2; p45
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG233907 representing NM_001261461
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCCTCCGTGTCTCCAGCAGAGCAGGAACAGGGTGATACAGCTGTCCACTTCAGAGCTAGGAGAGA
TGGAACTGACTTGGCAGGAGATCATGTCCATCACCGAGCTGCAGGGTCTGAATGCTCCAAGTGAGCCATC
ATTTGAGCCCAAGCCCCAGCTCCATACCTTGGACCTCCACCACCACAATTACTGCCCTGCTCAATC
CACCCAGATTCTGGCTTCCCACTTCTCCACCACCTTATGAGCTCCAGCATCCACATCCCATGTCCAG
ATCCCCATACTCCTATGGCAACATGGCCATACCAGTCTCCAAGCCACTGAGCCTCTCAGGCCTGCTCAG
TGAGCCGCTCCAAGACCCCTTAGCCCTCCTGGACATTGGGCTGCCAGCAGGGCCACCTAAGCCCCAAGAA
GACCCAGAATCCGACTCAGGATTATCCCTCAACTATAGCGATGCTGAATCTCTTGAGCTGGAGGGGACAG
AGGCTGGTCCGGCGGCAGCGAATATGTAGAGATGTACCCAGTGGAGTACCCCTACTCACTCATGCCAA
CTCCTTGGCCCACTCCAATACTTGGCAGCTGCTGAGACCCCTTGGCCTTAGAGCCCTCCTCAGGC
CCTGTGCGGGCTAAGCCCACTGCACGGGGGAGGCAGGGAGTCCGGATGAACGTCGGGCCTTGGCCATGA
AGATTCTTTTCTACGGACAAGATTGTCAACTTGCCGGTAGATGACTTTAATGAGCTATTGGCAAGGTA
CCCGCTGACAGAGAGCCAGCTAGCGTAGTCCGGGACATCCGACGACGGGGCAAAAACAAGTGCCAGCC
CAGAATGCCGCAAGAGGAAGCTGGAAACATTGTGCAGCTGGAGCGGGAGCTGGAGCGGCTGACCAATG
AACGGGAGCGGCTTCTCAGGGCCCGGGGAGGCAGACCGGACCTGGAGGTCATGCGCCAACAGCTGAC
AGAGCTGTACCGTACATTTTCCAGCACCTTCGGGATGAATCAGGCAACGCTACTCTCCTGAAGAGTAC
GCGCTGCAACAGGCTGCCGATGGGACCATCTTCTTGTGCCCGGGGACCAAGATGGAGGCCACAGAC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG233907 representing NM_001261461
Red=Cloning site Green=Tags(s)

MSPCPPQQRNRVIQLSTSELGEMELTWQEIMSITELQGLNAPSEPSFEPQAPAPYLGPPPTTYCPSI
 HPDSGFPLPPPPYELPASTSHVPDPYPYSYGNMAIPVSKPLSLGLLSEPLQDPLALLDIGLPAGPPKPQE
 DPESDSSLNYSDAESLELEGTEAGRRRSEYVEMYPVEYPYSLMPNSLAHSNYLPAAEPLALEPSSG
 PVRAKPTARGEAGSRDERRALAMKIPFPDVKIVNLPVDDFNELLARYPLTESQLALVRDIRRRGKNKVA
 QNCRKRKLETIVQLERELERLTNERERLLRARGEADRTLEVMRQQLTEL YRDI FQHLRDESGNSYSPEEY
 ALQQAADGTIFLVPRGTMKMEATD

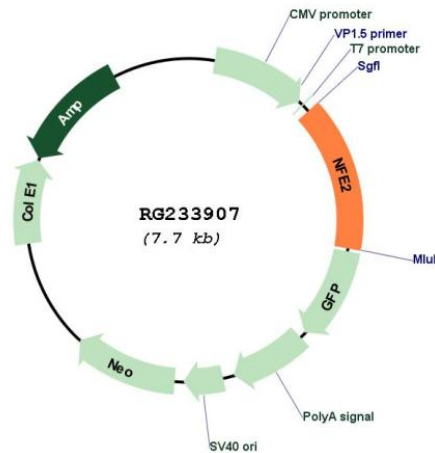
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001261461

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:	<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:	NM_001261461.1 , NP_001248390.1
RefSeq Size:	1828 bp
RefSeq ORF:	1122 bp
Locus ID:	4778
UniProt ID:	Q16621
Cytogenetics:	12q13.13
Protein Families:	Transcription Factors
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]