

Product datasheet for **RG202924**

Nuclear Factor Erythroid Derived 2 (NFE2) (NM_006163) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nuclear Factor Erythroid Derived 2 (NFE2) (NM_006163) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nuclear Factor Erythroid Derived 2
Synonyms:	NF-E2; p45
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202924 representing NM_006163 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGTCCCCGTGTCTCCCCAGCAGAGCAGGAACAGGGTGATACAGCTGTCCACTTCAGAGCTAGGAGAGA
TGGAACTGACTTGGCAGGAGATCATGTCCATCACCGAGCTGCAGGGTCTGAATGCTCCAAGTGAGCCATC
ATTTGAGCCCCAAGCCCCAGCTCCATACCTTGGACCTCCACCACCCACAATTACTGCCCTGCTCAATC
CACCCAGATTCTGGCTTCCCACTTCTCCACCACCTTATGAGCTCCAGCATCCACATCCCATGTCCAG
ATCCCCATACTCCTATGGCAACATGGCCATACCACTCTCCAAGCCACTGAGCCTCTCAGGCCTGCTCAG
TGAGCCGCTCCAAGACCCCTTAGCCCTCCTGGACATTGGGCTGCCAGCAGGGCCACCTAAGCCCCAAGAA
GACCCAGAATCCGACTCAGGATTATCCCTCAACTATAGCGATGCTGAATCTCTTGAGCTGGAGGGGACAG
AGGCTGGTGGCGGGCGCAGCGAATATGTAGAGATGTACCAAGTGGAGTACCCCTACTCACTCATGCCAA
CTCCTTGGCCCACTCCAATACTTGGCAGCTGCTGAGACCCCTTGGCCTTAGAGCCCTCCTCAGGC
CCTGTGCGGGCTAAGCCCACTGCACGGGGGAGGCAGGGAGTCCGGATGAACGTCGGGCCTTGGCCATGA
AGATTCTTTTCTACGACAAGATTGTCAACTTGCCGGTAGATGACTTTAATGAGCTATTGGCAAGGTA
CCCGCTGACAGAGAGCCAGCTAGCGTAGTCCGGGACATCCGACGACGGGGCAAAAACAAGTGCCAGCC
CAGAAGTCCGCAAGAGGAAGCTGGAAACCATTTGTGAGCTGGAGCGGGAGCTGGAGCGGCTGACCAATG
AACGGGAGCGGCTTCTCAGGGCCCGGGGAGGCAGACCGGACCTGGAGGTCATGCGCCAACAGCTGAC
AGAGCTGTACCGTGACATTTTCCAGCACCTTCGGGATGAATCAGGCAACAGCTACTCTCCTGAAGAGTAC
GCGCTGCAACAGGCTGCCGATGGGACCATCTCCTTGTGCCCCGGGGGACCAAGATGGAGGCCACAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG202924 representing NM_006163
 Red=Cloning site Green=Tags(s)

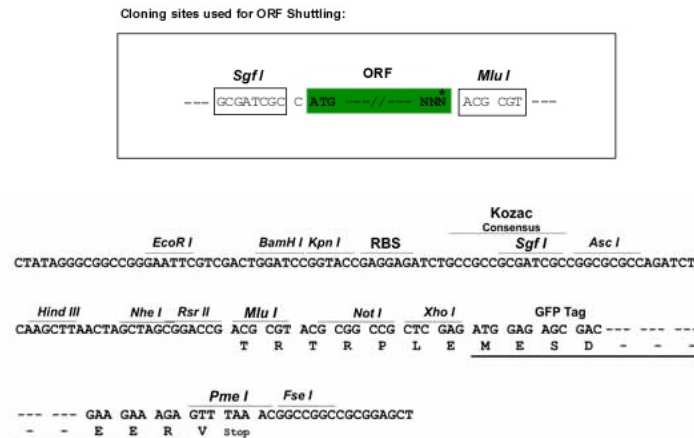
MSPCPPQQRNRVQLSTSELGEMELTWQEIMSITELQGLNAPSEPSFEPQAPAPYLGPPPPTTYCPCSI
 HPDSGFPLPPPPYELPASTSHVPDPYPYSYGNMAIPVSKPLSLGGLSEPLQDPLALLDIGLPAGPPKPQE
 DPESDGLSLNYSDAESLELEGTEAGRRRSEYVEMYPVEYPYSLMPNSLAHSNYTLPAETPLALEPSSG
 PVRAKPTARGEAGSRDERRALAMKIPFPTDKIVNLPVDDFNELLARYPLTESQLALVRDIRRRGKNKVAA
 QNCRKRKLETIVQLERELERLTNERERLLRARGEADRTLEVMRQQLTELVRDIFQHLRDESGNSYSPEEY
 ALQQAADGTIFLVPRGTMKMEATD

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_006163

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_006163.2](#)

RefSeq Size: 1678 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]

Product images:



Circular map for RG202924