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Product datasheet for RG227517

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:	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:

>RG227517 representing NM_001136023
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCCCGTGTCCTCCCCAGCAGAGCAGGAACAGGGTGATACAGCTGTCCACTTCAGAGCTAGGAGAGA
TGGAACTGACTTGGCAGGAGATCATGTCCATCACCGAGCTGCAGGGTCTGAATGCTCCAAGTGAGCCATC
ATTTGAGCCCCAAGCCCCAGCTCCATACCTTGGACCTCCACCACCCACAACTTACTGCCCCTGCTCAATC
CACCCAGATTCTGGCTTCCCACTTCCTCCACCACCTTATGAGCTCCCAGCATCCACATCCCATGTCCCAG
ATCCCCCATACTCCTATGGCAACATGGCCATACCAGTCTCCAAGCCACTGAGCCTCTCAGGCCTGCTCAG
TGAGCCGCTCCAAGACCCCTTAGCCCTCCTGGACATTGGGCTGCCAGCAGGGCCACCTAAGCCCCAAGAA
GACCCAGAATCCGACTCAGGATTATCCCTCAACTATAGCGATGCTGAATCTCTTGAGCTGGAGGGGACAG
AGGCTGGTCGGCGGCGCAGCGAATATGTAGAGATGTACCCAGTGGAGTACCCCTACTCACTCATGCCCAA
CTCCTTGGCCCACTCCAACTATACCTTGCCAGCTGCTGAGACCCCCTTGGCCTTAGAGCCCTCCTCAGGC
CCTGTGCGGGCTAAGCCCACTGCACGGGGGGAGGCAGGGAGTCGGGATGAACGTCGGGCCTTGGCCATGA
AGATTCCTTTTCCTACGGACAAGATTGTCAACTTGCCGGTAGATGACTTTAATGAGCTATTGGCAAGGTA
CCCGCTGACAGAGAGCCAGCTAGCGCTAGTCCGGGACATCCGACGACGGGGCAAAAACAAGGTGGCAGCC
CAGAACTGCCGCAAGAGGAAGCTGGAAACCATTGTGCAGCTGGAGCGGGAGCTGGAGCGGCTGACCAATG
AACGGGAGCGGCTTCTCAGGGCCCGCGGGGAGGCAGACCGGACCCTGGAGGTCATGCGCCAACAGCTGAC
AGAGCTGTACCGTGACATTTTCCAGCACCTTCGGGATGAATCAGGCAACAGCTACTCTCCTGAAGAGTAC
GCGCTGCAACAGGCTGCCGATGGGACCATCTTCCTTGTGCCCCGGGGGACCAAGATGGAGGCCACAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

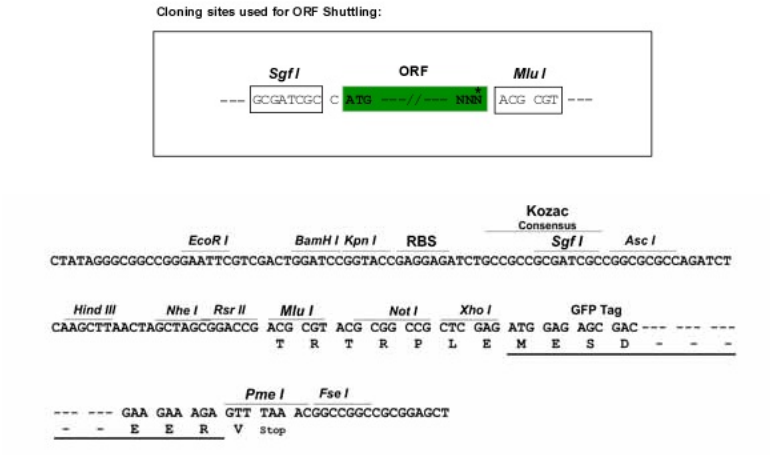
>RG227517 representing NM_001136023
Red=Cloning site Green=Tags(s)

MSPCPPQQSRNRVIQLSTSELGEMELTWQEIMSITELQGLNAPSEPSFEPQAPAPYLGPPPPTTYCPCSI
HPDSGFPLPPPPYELPASTSHVPDPPYSYGNMAIPVSKPLSLSGLLSEPLQDPLALLDIGLPAGPPKPQE
DPESDSGLSLNYSDAESLELEGTEAGRRRSEYVEMYPVEYPYSLMPNSLAHSNYTLPAAETPLALEPSSG
PVRAKPTARGEAGSRDERRALAMKIPFPTDKIVNLPVDDFNELLARYPLTESQLALVRDIRRRGKNKVAA
QNCRKRKLETIVQLERELERLTNERERLLRARGEADRTLEVMRQQLTELYRDIFQHLRDESGNSYSPEEY
ALQQAADGTIFLVPRGTKMEATD

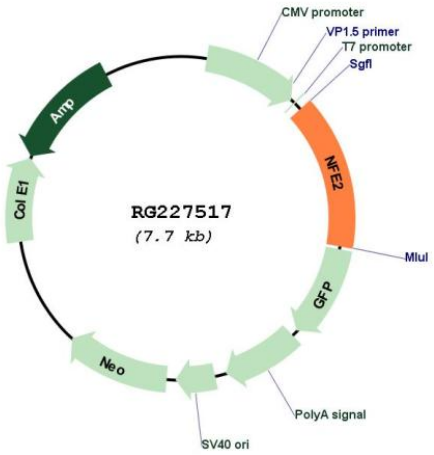
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001136023

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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:	1663 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]

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