

## Product datasheet for **RG238707**

### **NRF1 (NM\_001293163) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NRF1 (NM_001293163) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NRF1
Synonyms:	ALPHA-PAL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG238707 representing NM\_001293163.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGGAACACGGAGTGACCCAAACCGAACATATGGCTACCATAGAAGCACATGCAGTGGCCAGCAA
GTGCAGCAGGTCCATGTGGCTACTTACACCGAGCATAGTATGCTGAGTGTGATGAAGACTCGCCTTCT
TCTCCCGAGGACACCTCTTACGATGACTCAGATATACTCAACTCCACAGCAGCTGATGAGGTGACAGCT
CATCTGGCAGCTGCAGGTCTGTGGGAATGGCCGCTGCTGCTGTGGCAACAGGAAAGAAACGGAAA
CGGCTCATGTATTTGAGTCTAATCCATCTATCCGGAAGAGGCAACAAACACGTTTGTCTCGAAACTT
CGAGCCACGTTAGATGAATATACTACTCGTGTGGGACAGCAAGCTATTGCCTCTGTATCTACCCTCC
AAACCTAACCTGTCTTTAAAGTGTGGTGCAGCACCTTTGGAGAATGTGGTGCCTAAGTACAAGAGC
ATGATCCTGGAAGACCTGGAGTCTGCTCTGGCAGAACACGCCCTGCGCCACAGGAGTTAACTCAGAA
CTGCCGCTCTCACCATCGACGGAATCCAGTCTCTGTGGACAAAATGACCCAGGCCAGCTTCGGGCA
TTTATCCAGAGATGCTCAAGTACTCTACAGTCTGGGGAAAACAGGCTGGGGAAAAGAAAGCTGCAAG
CCCATCTGGTGGCTGAAGATATCCCTGGGCAATGTCCGGAGTGATGTCCGCACAGAAGAGCAAAAG
CAGAGGGTTTCATGGACCCAGGCACTACGGACCATAGTTAAAACTGTTATAAACAGCATGGGCGGGAA
GACCTTTTGTATGCCTTTGAAGATCAGCAAACGCAACACAGGCCACAGCCACACATAGTATAGCTCAT
CTTGATACCATCACAGACTGTAGTCCAGACTTTTAGTAACCCTGATGGCACTGTCTCACTTATCCAGTGT
GGTACGGGGGCAACAGTAGCCACATTGGCTGATGCTTCAGAAATGCCAACACGGTACCAGTTGCCCAA
GTGAATTATTCTGCCGTGGCTGATGGAGAGGTGGAACAAAATGGGCCACGTTACAGGGAGGTGAGATG
ACCATCCAGACGACGCAAGCATCAGAGGCCACCCAGGCGGTGGCATCGTTGGCAGAGGCCAGTGGCA
GCTTCTCAGGAGATGCAGCAGGGAGCTACAGTCACTATGGCGCTTAACAGCGAAGTCCCGCCATGCT
GTCGCCACCTGGCTGAGGCCACCTTACAAGGTGGGGACAGATCGTCTTGTCTGGGAAACCCGACGA
GCCGTCGGAGCACTTACTGGAGTCCAAGATGCTAATGGCCTCTTATGGCAGATCGTGCAGTTCGAAG
TGGATCCTGACTGACAAAGCCACAGGCCTGGTCCAGATCCCTGTGAGCATGTACCAGACTGTGGTGACC
AGCCTCGCCAGGGCAACGGACAGTGCAGGTGGCCATGGCCCTGTGACCACCAGGATATCAGACAGC
GCAGTCCCATGGACGGCAAGCTGTGGAGGTGGTACATTGGAACAG
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```

**Protein Sequence:**

>Peptide sequence encoded by RG238707  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MEEHGVTQTEHMTIEAHAVAQQVQVHVATYTEHSMLSADESPSSPEDTSYDDSDILNSTAADEVTA
HLAAAGPVGMAAAAVATGKKRRPHVFESNPSIRKRQQLRLLRKLRLATLDEYTRVGGQAIVLCISPS
KPNPVFKVFGAAPLENVVRKYKSMILEDLESALAEHAPAPQEVNSELPLTIDGIPVSVDKMTQAQLRA
FIPMLKYSTGRGKPGWGKESCKPIWWPEDIIPWANVRSDVREEQQRVSWTQALRTIVKNYKQHGREGRE
DLLYAFEDQQTQTQATATHSIAHLVPSQTVVQTFSNPDGTVSLIQVGTGATVATLADASELPTTVTVAQ
VNYSAVADGEVEQNWATLQGGEMTIQTTQASEATQAVASLAEAAVAASQEMQQGATVTMALNSEAAHA
VATLAEATLQGGGQIVLSGETAAAVGALTGVDANGLFMADRAGRKWLTDKATGLVQIPVSMYQTVVT
SLAQNGPVPVQVAMAPVTTTRISDSAVTMDGQAVEVVTLQ
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001293163

**ORF Size:** 1566 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).

**RefSeq:** [NM\\_001293163.2](#)

**RefSeq Size:** 3612 bp

**RefSeq ORF:** 1569 bp

**Locus ID:** 4899

**UniProt ID:** [Q16656](#)

**Cytogenetics:** 7q32.2

**Protein Families:** Transcription Factors

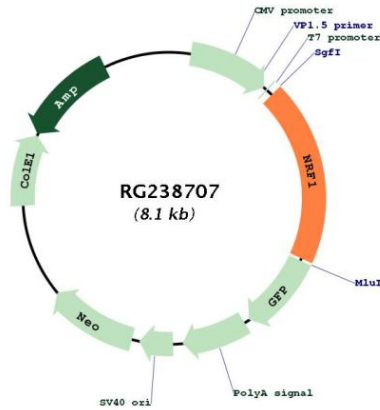
**Protein Pathways:** Huntington's disease

**MW:** 56.1 kDa

**Gene Summary:**

This gene encodes a protein that homodimerizes and functions as a transcription factor which activates the expression of some key metabolic genes regulating cellular growth and nuclear genes required for respiration, heme biosynthesis, and mitochondrial DNA transcription and replication. The protein has also been associated with the regulation of neurite outgrowth. Alternative splicing results in multiple transcript variants. Confusion has occurred in bibliographic databases due to the shared symbol of NRF1 for this gene and for "nuclear factor (erythroid-derived 2)-like 1" which has an official symbol of NFE2L1. [provided by RefSeq, May 2014]

**Product images:**



Circular map for RG238707