

Product datasheet for **RG216033**

RNF145 (NM_144726) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	RNF145
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG216033 representing NM_144726
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGATGAGAAACACAGAATTGCTAGTAGTTTATGTGGAGATCAGGTCTTCTCCAAGAAAAAAAAAAGA
 AAAAAAAAAACAACATGGCTGCAAAGGAGAACTGGAGGCAGTGTTAAATGTGGCCCTGAGGGTGCCAAG
 CATCATGCTGTTGGATGTCCTGTACAGATGGGATGTCAGCTCCTTTTCCAGCAGATCCAAAGAAGTAGC
 CTTAGTAATAACCCCTCTTTCCAGTATAAGTATTTGGCTCTTAATATGCATTATGTAGGTTATATCTTAA
 GTGTGGTGTGCTAACATTGCCAGGCAGCATCTGGTTCAGCTTTATCTATATTTTTGACTGCTCTGCT
 CCTCTATGCTGGACATCAAAATTTCCAGGACTATGTTCCGAGTGAACCTGGAGTTTGCCTATGAGGGACCA
 ATGTATTTAGAACCTCTCTCTATGAATCGGTTTACCACAGCCTTAATAGGTGAGTTGGTGGTGTGTAATT
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 TTCAGGTAGTGGAGGTATATGGCCTTCTCGCCTTGGGAATGTCCTGTGGAATCAACTGGTAGTCCCTGT
 TCTTTTCATGGTTTTCTGGCTCGTCTTATTTGCTCTTCAGATTTACTCTATTTTCAGTACTCGAGATCAG
 CCTGCATCAGTGAGAGGCTTCTTTTCTTTTCTGACAAGTATTGCGGAATGCTGCAGCACTCCTTACT
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 GCAGGGTTATCGAGCTTTCATGAATGATCCTGCCATGAATCGGGGCATGACAGAAGGAGTAACGCTGTTA
 ATCCTGGCAGTGCAGACTGGGCTGATAGAACTGCAGGTTGTTATCGGGCATTCTTGCTCAGTATTATCC
 TTTTCATTGTCGTAGCTTCTATCCTACAGTCTATGTTAGAAATGCAGATCCTATTGTTTTGGCACTGGG
 AGCATCTAGAGACAAGAGCTTGTGGAACACTTCCGTGCTGTAAGCCTTTGTTTATTTTATTGTTATTC
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 GCAGCATTCTTACCTCTCTCAGGTTCTGGGAACACTTTTTATTTATGTCTATTTATGTTTGAGGAATT
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 TTTCTTGTGGCCCTCTGTGTGGTGGCCTATGGCGTCTCAGAGACCATCTTGGAGAATGGACAGTGATGG
 GCTCAATGATCATCTTCATTCTCTACTATAACGTGTGGCTTCGGGCCAGCTGGGGTGGAAAGAGCTT
 TCTTCTCCGAGGGATGCTGTGAATAAGATTAAATCGTTACCCATTGCTACGAAAGAGCAGCTTGAGAAA
 CACAATGATATTTGTGCCATCTGTTATCAGGACATGAAATCTGCTGTGATCACGCTTGCAGTCATTTTT
 TCCATGCAGGCTGTCTTAAGAAATGGCTGTATGTCCAGGAGACCTGCCCTCTGTGCCACTGCCATCTGAA
 AAACCTCTCCAGCTTCCAGGATTAGGAACTGAGCCAGTTCTACAGCCTCATGTGGAGCTGAGCAAAAC
 GTCATGTTTTCAGGAAGGTACTGAACCCCGAGCCAGGAGCATACTCCAGGGACCAAGGATACAGGAAGGT
 CCAGGGACAATAATGAGTACATTGCCAGACGACCAGATAACCAGGAAGGGGCTTTTGACCCCAAGAATA
 TCCTCACAGTGCAGAAAGATGAAGCACATCCTGTTGAATCAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

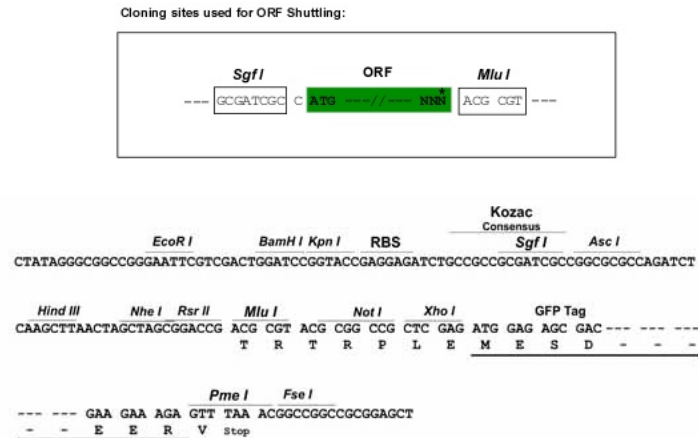
Protein Sequence: >RG216033 representing NM_144726
 Red=Cloning site Green=Tags(s)

MMRNHRIASSLCGDQVFSSKKKKKKKKNNMAAKEKLEAVLNVALRVPSIMLLDLVLRWDVSSFFQQIQRSS
 LSNNPLFQYKYLALNMHYVGYILSVLLTLPRQHLVQLYLYFLTALLLYAGHQISRQYVRSLEFAYEGP
 MYLEPLSMNRFTTALIGQLVVCTLCSCVMKQIWLFSAHMLPLLARLCLVPLETIVINKFAMIFTGLE
 VLYFLGNNLLVPYNLAKSAYRELQVVEVYGLLALGMSLWNQLVVPVLFMVFWLVLFALQIYSYFSTRDQ
 PASRERLLFLFLTSIAECCSTPYSLGLVFTVSFVALGVLTLCKFYLQGYRAFMDNPAMNRMGTEGVTL
 ILAVQTGLIELQVHRAFLLSIILFIVVASILQSMLEIADPIVLALGASRDKSLWKHFRVSLCLFLLVF
 PAYMAYMICQFFHMDFWLLIISSSILTSQVLGTLFIYVLFMVEEFRKEPVENMDDVIYYVNGTYRLLE
 FLVALCVVAYGVSETIFGEWTVMGSMIIFIHSYNNVWLRQLGWKSFLLRRDAVNKIKSLPIATKEQLEK
 HNDICAICYQDMKSAVITPCSHFFHAGCLKKWL YVQETCPLCHCHLKNSSQLPGLGTEPVLQPHAGAEQN
 VMFQEGTEPPGQEHPTGTRIQEGSRDNNIYIARRPDNQEGAFDPKEYPHSAKDEAHPVESA

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_144726

ORF Size: 2073 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

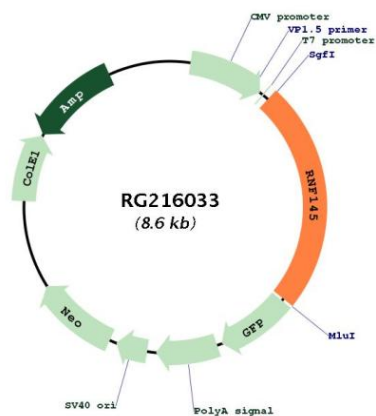
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<u>NM_144726.2</u>
RefSeq Size:	3362 bp
RefSeq ORF:	2076 bp
Locus ID:	153830
UniProt ID:	<u>Q96MT1</u>
Cytogenetics:	5q33.3
Domains:	RING
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	E3 ubiquitin ligase that catalyzes the direct transfer of ubiquitin from E2 ubiquitin-conjugating enzyme to a specific substrate. In response to bacterial infection, negatively regulates the phagocyte oxidative burst by controlling the turnover of the NADPH oxidase complex subunits. Promotes monoubiquitination of CYBA and 'Lys-48'-linked polyubiquitination and degradation of CYBB NADPH oxidase catalytic subunits, both essential for the generation of antimicrobial reactive oxygen species. Involved in the maintenance of cholesterol homeostasis. In response to high sterol concentrations ubiquitinates HMGCR, a rate-limiting enzyme in cholesterol biosynthesis, and targets it for degradation. The interaction with INSIG1 is required for this function. In addition, triggers ubiquitination of SCAP, likely inhibiting its transport to the Golgi apparatus and the subsequent processing/maturation of SREBPF2, ultimately downregulating cholesterol biosynthesis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG216033