

Product datasheet for **RG202681**

NRAS (NM_002524) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: NRAS (NM_002524) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: NRAS
Synonyms: ALPS4; CMNS; N-ras; NCMS; NRAS1; NS6
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG202681 representing NM_002524
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACTGAGTACAACTGGTGGTGGTTGGAGCAGGTGGTGGTGGGAAAAGCGCACTGACAATCCAGCTAA
 TCCAGAACCACCTTTGTAGATGAATATGATCCCACCATAGAGGATTCTTACAGAAAACAAGTGTTATAGA
 TGGTGAACCTGTTTGGTGGACATACTGGATACAGCTGGACAAGAAGAGTACAGTGCCATGAGAGACCAA
 TACATGAGGACAGGCGAAGGCTTCTCTGTGATTTGCCATCAATAATAGCAAGTCATTTGCGGATTA
 ACCTCTACAGGGAGCAGATTAAGCGAGTAAAAGACTCGGATGATGTACCTATGGTCTAGTGGGAAACAA
 GTGTGATTTGCCAACAAGGACAGTTGATACAAAACAAGCCACGAACTGGCCAAGAGTTACGGGATTC
 TTCATTGAAACCTCAGCCAAGACCAGACAGGGTGTGAAGATGCTTTTTACACTGGTAAGAGAAATAC
 GCCAGTACCGAATGAAAAAACAACAGCAGTGATGATGGGACTCAGGGTGTATGGGATTGCCATGTGT
 GGTGATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202681 representing NM_002524
 Red=Cloning site Green=Tags(s)

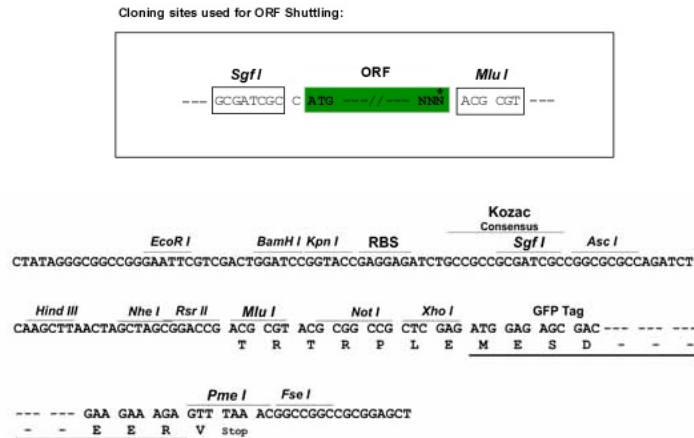
MTEYKLVVVGAGVGKSAITQLIQNHFVDEYDPTIEDSYRKQVVIDGETCLLDILDITAGQEEYSAMRDQ
 YMRTGEGFLCVFAINNSKSFADINLYREQIKRVKSDDDVPMVLVGNKCDLPTRTVDTKQAHELAKSYGIP
 FIETSAKTRQGVEDAFYTLVREIRQYRMKKLNSDDGTQGCMLPCVVM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_002524

ORF Size: 567 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:

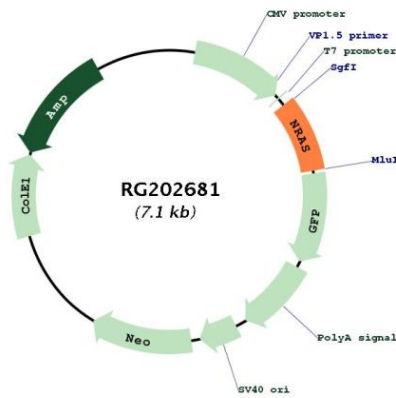
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_002524.5](#)

RefSeq Size:	1963 bp
RefSeq ORF:	570 bp
Locus ID:	4893
UniProt ID:	P01111
Cytogenetics:	1p13.2
Domains:	ras, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	Acute myeloid leukemia, Axon guidance, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Thyroid cancer, Tight junction, VEGF signaling pathway

Gene Summary: This is an N-ras oncogene encoding a membrane protein that shuttles between the Golgi apparatus and the plasma membrane. This shuttling is regulated through palmitoylation and depalmitoylation by the ZDHHC9-GOLGA7 complex. The encoded protein, which has intrinsic GTPase activity, is activated by a guanine nucleotide-exchange factor and inactivated by a GTPase activating protein. Mutations in this gene have been associated with somatic rectal cancer, follicular thyroid cancer, autoimmune lymphoproliferative syndrome, Noonan syndrome, and juvenile myelomonocytic leukemia. [provided by RefSeq, Jun 2011]

Product images:



Circular map for RG202681