OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC118574

NRAS (NM_002524) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRAS (NM_002524) Human Untagged Clone
Tag:	Tag Free
Symbol:	NRAS
Synonyms:	ALPS4; CMNS; N-ras; NCMS; NRAS1; NS6
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene sequence for NM_002524 edited
GAATTCGGCACGAGGCCTTGGTGGGGGCTGTTCATGGCGGTTCCGGGGTCTCCAACATTT
TTCCCGGCTGTGGTCCTAAATCTGTCCAAAGCAGAGGCAGTGGAGCTTGAGGTTCTTGCT
GGTGTGAAATGACTGAGTACAAACTGGTGGTGGTTGGAGCAGGTGGTGTTGGGAAAAGCG
CACTGACAATCCAGCTAATCCAGAACCACTTTGTAGATGAATATGATCCCACCATAGAGG
ATTCTTACAGAAAACAAGTGGTTATAGATGGTGAAACCTGTTTGTTGGACATACTGGATA
CAGCTGGACAAGAAGAGTACAGTGCCATGAGAGACCAATACATGAGGACAGGCGAAGGCT
TCCTCTGTGTATTTGCCATCAATAATAGCAAGTCATTTGCGGATATTAACCTCTACAGGG
AGCAGATTAAGCGAGTAAAAGACTCGGATGATGTACCTATGGTGCTAGTGGGAAACAAGT
GTGATTTGCCAACAAGGACAGTTGATACAAAACAAGCCCACGAACTGGCCAAGAGTTACG
GGATTCCATTCATTGAAACCTCAGCCAAGACCAGACAGGGTGTTGAAGATGCTTTTTACA
CACTGGTAAGAGAAATACGCCAGTACCGAATGAAAAAACTCAACAGCAGTGATGATGGGA
CTCAGGGTTGTATGGGATTGCCATGTGTGGTGATGTAACAAGATACTTTTAAAGTTTTGT
CAGAAAAGAGCCACTTTCAAGCTGCACTGACACCCTGGTCCTGACTTCCCTGGAGGAGAA
GTATTCCTGTTGCTGTCTTCAGTCTCACAGAGAAGCTCCTGCTACTTCCCCAGCTCTCAG
TAGTTTAGTACAATAATCTCTATTTGAGAAGTTCTCAGAATAACTACCTCCTCACTTGGC
TGTCTGACCAGAGAATGCACCTCTTGTTACTCCCTGTTATTTTTCTGCCCTGGGTTCTTC
CACAGCACAAACACACCTCTGCCACCCCAGGTTTTTCATCTGAAAAGCAGTTCATGTCTG
AAACAGAGAACCAAACCGCAAACGTGAAATTCTATTGAAAACAGTGTCTTGAGCTCTAAA
GTAGCAACTGCTGGTGATTTTTTTTTTCTTTTTACTGTTGAACTTAGAACTATGCTAATT
TTTGGAGAAATGTCATAAATTACTGTTTTGCCAAGAATATAGTTATTATTGCTGTTTGGT
TTGTTTATAATGTTATCGGCTCTATTCTCTAAACTGGCATCTGCTCTAGATTCATAAATA
CAAAAATGAATACTGAATTTTGAGTCTATCCTAGTCTTCACAACTTTGACGTAATTAAAT
CCAACTTTCACAGTGAAGTGCCTTTTTCCTAGAAGTGGTTTGTAGACTTCCTTTATAATA
TTTCAGTGGAATAGATGTCTCAAAAATCCTTATGCATGAAATGAATGTCTGAGATACGTC
TGTGACTTATCTACCATTGAAGGAAAGCTATATCTATTTGAGAGCAGATGCCATTTTGTA
CATGTATGAAATTGGTTTTCCAGAGGCCTGTTTTGGGGCTTTCCCAGGAGAAAGATGAAA
CTGAAAGCATATGAATAATTTCACTTAATAATTTTTACCTAATCTCCACTTTTTTCATAG
GTTACTACCTATACAATGTATGTAATTTGTTTCCCCTAGCTTACTGATAAACCTAATATT
CAATGAACTTCCATTTGTATTCAAATTTGTGTCATACCAGAAAGCTCTACATTTGCAGAT
GTTCAAATATTGTAAAACTTTGGTGCATTGTTATTTAATAGCTGTGATCAGTGATTTTCA
AACCTCAAATATAGTATATTAACAAATTAAAAAAAAAAAAAAAAAACTCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002524 unedited
TTTGTATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCTTGGTGGGGGCTG
TTCATGGCGGTTCCGGGGTCTCCAACATTTTTCCCGGCTGTGGTCCTAAATCTGTCCAAA
GCAGAGGCAGTGGAGCTTGAGGTTCTTGCTGGTGTGAAATGACTGAGTACAAACTGGTGG
TGGTTGGAGCAGGTGGTGTTGGGAAAAGCGCACTGACAATCCAGCTAATCCAGAACCACT
TTGTAGATGAATATGATCCCACCATAGAGGATTCTTACAGAAAACAAGTGGTTATAGATG
GTGAAACCTGTTTGTTGGACATACTGGATACAGCTGGACAAGAAGAGTACAGTGCCATGA
GAGACCAATACATGAGGACAGGCGAAGGCTTCCTCTGTGTATTTGCCATCAATAATAGCA
AGTCATTTGCGGATATTAACCTCTACAGGGAGCAGATTAAGCGAGTAAAAGACTCGGATG
ATGTACCTATGGTGCTAGTGGGAAACAAGTGTGATTTGCCAACAAGGACAGTTGATACAA
AACAAGCCCACGAACTGGCCAAGAGTTACGGGATTCCATTCATTGAAACCTCAGCCAAGA
CCAGACAGGGTGTTGAAGATGCTTTTTACACACTGGTAAGAGAAATACGCCAGTACCGAA
TGAAAAAACTCAACAGCAGTGATGATGGGACTCAGGNTTGTATGGGATTGCCATGTGTGG
TGATGTAACAANGATACTTTAAAGTTTTGTCAGAAAAGAGCCACTTTTCAGCTGCACTGA
CACCCTGGTCCTGACTTCCCTGGNAGAGAAGTATNCCTGTTGCTGTCTTCAGTCTCACAG
AGAAGCTNCTGCTACTTNCCCACTCTNAGTAGTTNAGNACAATATCTCTATTTGAGAAGT
CTCAAATAACTACCTCTCACTGGCT

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_002524 unedited
GTACCGCGGCCCGCAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTAATTTGTTAATATA
CTATATTTGAGGTTTGAAAATCACTGATCACAGCTATTAAATAACAATGCACCAAAGTTT
TACAATATTTGAACATCTGCAAATGTAGAGCTTTCTGGTATGACACAAATTTGAATACAA
ATGGAAGTTCATTGAATATTAGGTTTATCAGTAAGCTAGGGGAAACAAATTACATACATT
GTATAGGTAGTAACCTATGAAAAAAGTGGAGATTAGGTAAAAATTATTAAGTGAAATTAT
TCATATGCTTTCAGTTTCATCTTTCTCCTGGGAAAGCCCCAAAACAGGCCTCTGGAAAAC
CAATTTCATACATGTACAAAATGGCATCTGCTCTCAAATAGATATAGCTTTCCTTCAATG
GTAGATAAGTCACAGACGTATCTCAGACATTCATTTCATGCATAAGGATTTTTGAGACAT
CTATTCCACTGAAATATTATAAAGGAAGTCTACAAACCACTTCTAGGAAAAAGGCACTTC
ACTGTGAAAGTTGGATTTAATTACGTCAAAGTTGTGAAGACTAGGATAGACTCAAAATTC
AGTATTCATTTTTGTATTTATGAATCTAGAGCAGATGCCAGTTTAGAGAATAGAGCCGAT
AACATTATAAACAAACCAAACAGCACTAATAACTATATTTCTTGGCAAAACAGTAATTTA
TGACATTTCTCCAAAAATAGCATAGTTCTAAGTTCAACAGTAAAAAGAAAAAAAAATCAC
CACCAGTTGCTACTTTAGAGCTCAAGAACTGTTTTCATAGAATTCACGTTTGCGGTTTGG
TTCTCTGTTCAGACATGACTGCTTTCAGATGAAAACCTGGGTGGCANAAGTTGTGTTGTG
CTGTGGAAAACCCAGGCCAAATAATACAGGGGTTACAGGAGGGCTT
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Restriction Sites: NotI-NotI

ACCN: NM_002524

Insert Size: 1860 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

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_002524.2, NP_002515.1

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]