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Product datasheet for SC126782

KRAS (NM_033360) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KRAS (NM_033360) Human Untagged Clone
Tag:	Tag Free
Symbol:	KRAS
Synonyms:	C-K-RAS; c-Ki-ras2; CFC2; K-Ras; K-RAS2A; K-RAS2B; K-RAS4A; K-RAS4B; KI-RAS; KRAS1; KRAS2; NS; NS3; RALD; RASK2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_033360 edited ATGACTGAATATAAACTTGTGGTAGTTGGAGCTGGTGGCGTAGGCAAGAGTGCCTTGACG ATACAGCTAATTCAGAATCATTTTGTGGACGAATATGATCCAACAATAGAGGATTCCTAC AGGAAGCAAGTAGTAATTGATGGAGAAACCTGTCTCTTGGATATTCTCGACACAGCAGGT CAAGAGGAGTACAGTGCAATGAGGGACCAGTACATGAGGACTGGGGAGGGCTTTCTTTGT GTATTTGCCATAAATAATACTAAATCATTTGAAGATATTCACCATTATAGAGAACAAATT AAAAGAGTTAAGGACTCTGAAGATGTACCTATGGTCCTAGTAGGAAATAAATGTGATTTG CCTTCTAGAACAGTAGACACAAAACAGGCTCAGGACTTAGCAAGAAGTTATGGAATTCCT TTTATTGAAACATCAGCAAAGACAAGACAGAGAGTGGAGGATGCTTTTTATACATTGGTG AGAGAGATCCGACAATACAGATTGAAAAAAATCAGCAAAGAAGAAAAGACTCCTGGCTGT GTGAAAATTAAAAAATGCATTATAATGTAA
5' Read Nucleotide Sequence:	>OriGene 5' read for NM_033360 unedited CGGCCGCGAATTCGGCACCAGGCAGCAGCGGCGGCGGCAGTGGCGGCGGCGAAGGTGGCG GCGGCTCGGCCAGTACTCCCGGCCCCCGCCATTTCGGACTGGGAGCGAGCGCGGCGCAGG CACTGAAGGCGGCGGCGGGGCCAGAGGCTCAGCGGCTCCCAGGTGCGGGAGAGAGGCCTG CTGAAAATGACTGAATATTTCTTGTGGTAGTTGGAGCTGGTGGCGTAGGCAAGAGTGCCT TGACGATACAGCTAATTCAGAATCATTTTGTGGACGAATATGATCCAACAATAGAGGATT CCTACAGGAAGCAAGTAGTAATTGATGGAGAAACCTGTCTCTTGGATATTCTCGACACAG CAGGTCAAGAGGAGTACAGTGCAATGAGGGACCAGTACATGAGGACTGGGGAGGGCTTTC TTTGTGTATTTGCCATAAATAATACTAAATCATTTGAAGATATTCACCATTATAGAGAAC AAATTAAAAGAGTTAAGGACTCTGAAGATGTACCTATGGTCCTAGTAGGAAATAAATGTG ATTTGCCTTCTAGAACAGTAGACACAAAACAGGCTCAGGACTTAGCAAGAAGTTATGGAA TTCCTTTTATTGAAACATCAGCAAAGACAAGAACAGGGTGTTGATGATGCCTTCTATACA TTAGTTCGAGAAATTCGAAACATTAAGAAAGATGAGCANAGATGGTNAAA

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3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_033360 unedited
GCTATGGACCGCGGCACGCATNCTAGTATCGAGTTTTTTTTTTTTTTTTTTAAAAAAACA
ATATAATCAAGTTTATTCCTTTAAAACAATGAAGTGATTTACATAAAGTAGCTTGATCGA
AGAGTTTCAGTGGAATCGTAGCAAAACAATTATAGAGCTGGCACAGAGACCAAACCCCTT
CTTTGCAAAACTAAAATACGCATCGTGTTATCTCTGGGTCGTATACCAAAGGCCTTAGTA
AGATATTACAGACCACACTAGCACTACCTAAGGACCGGGATTATGTCTCTTGTTTGGGGA
TACCATATACCCAGTGCCTTGTGCGGTGACTGGCATCTGGTAGGCACTCAATAAATATTT
GCTGAATAAATGAGTTCTGCAAAACAGGTTTATGAGGCCAAGGTGGGTGAATCACTTGAG
GTCAGGAGTTCGAGACCAGCCTGGCCAACAGGGTGAAACCCCGTCTCTCCTAAAAATACA
AAAATTATTTGAGTGTAGTGGCACACGCCTGTAATCCCAGCTACTCAGGAGGCCGAGGCA
CGAGAATCGCTTGAACCTGCGAGATGGAGGTTGCATGGAGCTGAGATGGCGCCACTGCAT
TCCACCCTGGGGGACAAGAGCGAGACTTTTGCCCCAAAACAAAAAAGCAAGCTTCATGAT
TTAAGAATTTTCCCTTTGATGGAACATCCCCGGTAACCAATCAACGGAAGGTTTAACTGG
TTCCCGATATCAGCCCGACTTTTGATTCCCTAAGAGACCTTTTACCCGTACCTCTGTTAA
TCTCCCCTCCACCGCCACGGGCCCGCCCCTTCCTCCCATGTGGGCACCCCCCTCGTCCCC
TGGTATGTTCATATTGTACCGTGTCGCTCGCCGCTTGCGCCTATCCCTCAGCCACGCGCT
TCGCCCATGTCGCGCCGGTCCGCACGCCGCCCCACGCCCGAGCCCCCCTACCA
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Restriction Sites: NotI-NotI

ACCN: NM_033360

Insert Size: 3900 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_033360.2, NP_203524.1

RefSeq Size: 5436 bp

RefSeq ORF:	570 bp
Locus ID:	3845
UniProt ID:	P01116
Cytogenetics:	12p12.1
Domains:	ras, RAN, 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, Colorectal cancer, Dorso-ventral axis formation, 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, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Thyroid cancer, Tight junction, VEGF signaling pathway
Gene Summary:	This gene, a Kirsten ras oncogene homolog from the mammalian ras gene family, encodes a protein that is a member of the small GTPase superfamily. A single amino acid substitution is responsible for an activating mutation. The transforming protein that results is implicated in various malignancies, including lung adenocarcinoma, mucinous adenoma, ductal carcinoma of the pancreas and colorectal carcinoma. Alternative splicing leads to variants encoding two isoforms that differ in the C-terminal region. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (a) is composed of six exons, including exon 4a, which the shorter transcript variant (b) lacks. This rare variant (a) has a cds that terminates in exon 4a and encodes a unique C-terminus, compared to isoform a. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.