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Product datasheet for SC128077

p21 Ras (HRAS) (NM_005343) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	p21 Ras (HRAS) (NM_005343) Human Untagged Clone
Tag:	Tag Free
Symbol:	p21 Ras
Synonyms:	C-BAS/HAS; C-H-RAS; C-HA-RAS1; CTLO; H-RASIDX; HAMSV; HRAS1; p21ras; RASH1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene sequence for NM_005343 edited GAATTCGGCACGAGGCGGGGCGGGGCGTGCGCAGGCCCGCCCGAGTCTCCGCCGCCCGTG CCCTGCGCCCGCAACCCGAGCCGCACCCGCCGCGGACGGAGCCCATGCGCGGGGCGAACC GCGCGCCCCCGCCCCCGCCCCGCCCCGGCCTCGGCCCCGGCCCTGGCCCCGGGGGCAGTC GCGCCTGTGAACGGTGGGGCAGGAGACCCTGTAGGAGGACCCCGGGCCGCAGGCCCTTGA GGAGCGATGACGGAATATAAGCTGGTGGTGGTGGGCGCCGGCGGTGTGGGCAAGAGTGCG CTGACCATCCAGCTGATCCAGAACCATTTTGTGGACGAATACGACCCCACTATAGAGGAT TCCTACCGGAAGCAGGTGGTCATTGATGGGGAGACGTGCCTGTTGGACATCCTGGATACC GCCGGCCAGGAGGAGTACAGCGCCATGCGGGACCAGTACATGCGCACCGGGGAGGGCTTC CTGTGTGTGTTTGCCATCAACAACACCAAGTCTTTTGAGGACATCCACCAGTACAGGGAG CAGATCAAACGGGTGAAGGACTCGGATGACGTGCCCATGGTGCTGGTGGGGAACAAGTGT GACCTGGCTGCACGCACTGTGGAATCTCGGCAGGCTCAGGACCTCGTCCGAAGCTACGGC ATCCCCTACATCGAGACCTCGGCCAAGACCCGGCAGGGAGTGGAGGATGCCTTCTACACG TTGGTGCGTGAGATCCGGCAGCACAAGCTGCGGAAGCTGAACCCTCCTGATGAGAGTGGC CCCGGCTGCATGAGCTGCAAGTGTGTGCTCTCCTGACGCAGCACAAGCTCAGGACATGGA GGTGCCGGATGCAGGAAGGAGGTGCAGACGGAAGGAGGAGGAAGGAAGGACGGAAGCAAG GAAGGAAGGAAGGGCTGCTGGAGCCCAGTCACCCCGGGACCGTGGGCCGAGGTGACTGCA GACCCTCCCAGGGAGGCTGTGCACAGACTGTCTTGAACATCCCAAATGCCACCGGAACCC CAGCCCTTAGCTCCCCTCCCAGGCCTCTGTGGGCCCTTGTCGGGCACAGATGGGATCACA GTAAATTATTGGATGGTCTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA AAACTCGAC

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005343 unedited
TTGTAATACGACCTCACTATAGGGGGCGGCCGCGATTCGGCACGAGGCGGGGCGGGGCGT
GCGCAGGCCCGCCCGAGTCTCCGCCGCCCGTGCCCTGCGCCCGCAACCCGAGCCGCACCC
GCCGCGGACGGAGCCCATGCGCGGGGCGAACCGCGCGCCCCCGCCCCCGCCCCGCCCCGG
CCTCGGCCCCGGCCCTGGCCCCGGGGGCAGTCGCGCCTGTGAACGGTGGGGCAGGAGACC
CTGTAGGAGGACCCCGGGCCGCAGGCCCTTGAGGAGCGATGACGGAATATAAGCTGGTGG
TGGTGGGCGCCGGCGGTGTGGGCAACAGTGCGCTGACCATCCAGCTGATCCAGAACCATT
TTGTGGACGAATACGACCCCACTATAAAGGATTCCTACCGGAAGCAGGTGGTCATTGATG
GGGAGACGTGCCTGTGGGACATCCTGGATACCGTCGGCCAGGAGGAGTACAGCGCCCTGC
GGGACCATTTCATGCCCACCGTGGAGGTCTTGCTGTGCTTGTTTGCCATCAACCTCACCA
AGTCTTTTGAGGACCTCCTCTCTGACAGGGAGCATTTCAAACTGTTGAAGGACTCGGATG
ACTTGCCCATGGTGCTGGTGCGGAACCAGTGTGAGCTGGCTCGTCCCACTGCGGATTCCC
CGGAGGCGCAAGACCTAGTACTATTCTATCGTGTCCCCGTAATGCATCACCTCGCCCTAA
AACCCCGCATGGTATTGGTAGTTGCCTTCTTCCACCTTGCTCCCTTTTATCTGCCGGCCC
ACCCACGCTCCGGCCAACTGCACCCCTCTCTTATATAATCGCCCCCCCGCTTCATTCATC
TGGCATTTTTTGTGCTACCCCTCGTCCCATCCCGAATCGCCCTGCCCTTGCTCGTCCGCC
TCTCTCTTGATTGTTCGTCTCACCTCAAAAGTG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005343 unedited
AACTGGCTTTATAAGGCGGCATCCGCGGTTTNGCCCGACGCCCGGCCCACAGNAGGCCNG
GGNAGTTTTAGCTAAGGCTGGGGNACCAAAGGCCTTTGGGATGTTCAAGACAGTCTGTGC
ACAGCCTCCCTGGGAGGGTCTGCAGTCACCTCGGCCCACGGTCCCTGTTTGACTGGGCTC
CAGCAGCCCTTCCTTCCTTCCTTGCTTCCGTCCTTCCATACATTTCCANCCGTTTGCACC
TCCTTCCTGCATCCGGCACCTTTTTTTCTGAGCTTGTGCTGCGTCAGGAGAGCACACACT
TGCAGCTCATGCAGCCGGGGCCACTCTCATCAGGAGGGTTCAGCTTCCGCAGCTTGTGCT
GCCGGATCTCACGCACCAACGTGTAGAAGGCATCCTCCACTCCCTGCCGGGTCTTGGCCG
AGGTCTCGATGTAGGGGATGCCGTAGCTTCGGACGAGGTCCTGAGCCTGCCGAGATTCCA
CAGTGCGTGCAGCCAGGTCACACTTGTTCCCCACCAGCACCATGGGCACGTCATCCGAGT
CCTTCACCCGTTTGATCTGCTCCCTGTACTGGTGGATGTCCTCAAAAGACTTGGTGTTGG
TGATGGCAAACACACACAGGAAGCCCTCCCCGGTGCGCATGTACTGGTCCCGCATGGCGC
TTGACTCCTCCCAGCCCGGCAGTAATCCAGATGTCCAACAGGGACGTTTCCCCCAAAATG
ACCACTTGTTCCCGTAGGAATCCCTTAAATGGGGTCGGATTCGTCCCAAAAAGGTTCTTG
GATCAACTGGTGGGCACGGAACTCTGGCCCAACCGGCGGAGCGCACAACACCAGGTTAAA
TTCCGGTATAGTCCCTAAGGGCCGGGGGCCGGGGGCCCCCTCACAGGGCTCGGGCCCCAC
CGTTACAAAGCCCACTGGCCCGGGGGCCAGGCCCGGGCCCAGCN

Restriction Sites: NotI-NotI

ACCN: NM_005343

Insert Size: 1250 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_005343.2, NP_005334.1

RefSeq Size: 1061 bp

RefSeq ORF: 570 bp

Locus ID: 3265

UniProt ID: P01112

Cytogenetics: 11p15.5

Protein Families: Druggable Genome

Protein Pathways: Acute myeloid leukemia, Axon guidance, B cell receptor signaling pathway, Bladder cancer, Chemokine signaling pathway, Chronic myeloid leukemia, Endocytosis, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Focal adhesion, 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 gene belongs to the Ras oncogene family, whose members are related to the transforming genes of mammalian sarcoma retroviruses. The products encoded by these genes function in signal transduction pathways. These proteins can bind GTP and GDP, and they have intrinsic GTPase activity. This protein undergoes a continuous cycle of de- and re-palmitoylation, which regulates its rapid exchange between the plasma membrane and the Golgi apparatus. Mutations in this gene cause Costello syndrome, a disease characterized by increased growth at the prenatal stage, growth deficiency at the postnatal stage, predisposition to tumor formation, cognitive disability, skin and musculoskeletal abnormalities, distinctive facial appearance and cardiovascular abnormalities. Defects in this gene are implicated in a variety of cancers, including bladder cancer, follicular thyroid cancer, and oral squamous cell carcinoma. Multiple transcript variants, which encode different isoforms, have been identified for this gene. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1) encodes the longer isoform (1). Both variants 1 and 3 encode the same isoform (1).