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Product datasheet for SC322309

Rab5 (RAB5A) (NM_004162) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rab5 (RAB5A) (NM_004162) Human Untagged Clone
Tag:	Tag Free
Symbol:	Rab5
Synonyms:	RAB5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>OriGene sequence for SC322309
CTAAGAGCAGGCGACGCCGCCGCCGCCACCACCACCGCCATAGATACACTCTCATCCTAC
GGGCCACGCCTGGGCCTTGCTGCCAGGAAGCTTCGGCCCCGCAGCTCGGCTTGCTGCGGT
CTCAGGTTTCTTTACCTCCAGAAAGAAGAATATTGGCCCCTTGAATTCTGGAAGTTCATT
GAAGAGTCTGAAATTAGGGACTTATTTCAAATTTGGACATGGCTAGTCGAGGCGCAACAA
GACCCAACGGGCCAAATACTGGAAATAAAATATGCCAGTTCAAACTAGTACTTCTGGGAG
AGTCCGCTGTTGGCAAATCAAGCCTAGTGCTTCGTTTTGTGAAAGGCCAATTTCATGAAT
TTCAAGAGAGTACCATTGGGGCTGCTTTTCTAACCCAAACTGTATGTCTTGATGACACTA
CAGTAAAGTTTGAAATATGGGATACAGCTGGTCAAGAACGATACCATAGCCTAGCACCAA
TGTACTACAGAGGAGCACAAGCAGCCATAGTTGTATATGATATCACAAATGAGGAGTCCT
TTGCAAGAGCAAAAAATTGGGTTAAAGAACTTCAGAGGCAAGCAAGTCCTAACATTGTAA
TAGCTTTATCGGGAAACAAGGCCGACCTAGCAAATAAAAGAGCAGTAGATTTCCAGGAAG
CACAGTCCTATGCAGATGACAATAGTTTATTATTCATGGAGACATCCGCTAAAACATCAA
TGAATGTAAATGAAATATTCATGGCAATAGCTAAAAAATTGCCAAAGAATGAACCACAAA
ATCCAGGAGCAAATTCTGCCAGAGGAAGAGGAGTAGACCTTACCGAACCCACACAACCAA
CCAGGAATCAGTGTTGTAGTAACTAAACCTCTAGTTTGAACTAGCTGGAATAGTCTTCTG
CTTCCTAAATGTTAATAACAATGGAATTGGAGCATTTAACCAGCCCAGTATGACTTCCAA
AAGAAGAGACTTATGATAGAGTCAAGTTTCTAATACAGAATTATTTTAAGTGTTTTGAAC
TTAATTTTTAATAACATGCATGGGTCCCTCTCACTAATGTTTCAACAATAGGGAAAAATG
AGAACTATGTGGACACTTGTTTCATTGGAAGGTTAGGGGGAATAATTTCTCATCACTAGG
AATATAGACAAATGACTGTCTGGGCCCACACAGTTAACCAGCCCATTTCTCCACACTGGT
ACAGTAGTCACCTGTGAAAAAAAAAATTGGAACTTACTAATTTGGGCTTTTCAAAAACAT
TCTTTGTTTAGAAGGAGATTCTAAAGTTATTTATGATGCTTAGCCATAGTATTCAGGCAA
ATGTTCATTTCTCCTGGTACCTGTATTTAAAATGTACATTCCACATTTTAATAAATTAAC
CACAAGAAAATAATCCCACATATACAAGGTCAGGGGTGGGGAAGAGTATTAATGGTATCT
TAATTATACCCAGTCTGGTTTTTTTTTTTTAAATGGGGTAAAAATCAAATGCAACCCCAT
CTTGTTTTAGGAATTTTGAGAACTAATAAATGCACCTTAATGGTCAGTGTTCCTTTCAAA
CATGTGAGTTCTTTAACAAAAATGAAATAAACCAGGTGTCTGTGATTTCTAATTAATCAC
CGCTGGCCATTACACAGGTTTTGTTGTTTGGGGTGGGGAGGGGGCTTTTGTTCCCTTTTG
ACATAATATAGTCAATGCACTAACAATTATGTATATTCAAACTTGATTATTTTAAATTCG
ATCTTCAGCTGTACTGTAAATAGGGTACTGCATTGTAGTCTCCATATCTGTATTACTTTT
CTGTAATATTTAAGAGTTGCTTAAAAGCATACAAAATGTACTGTTACTAAAACAGCTAAT
TATTTCTCTCTCCCCCTTTGACAGGAAGGGGCTTCAGTTGTTCCTCCATGGCTAGAACCA
TAATAAACAATGTACCCGTAATTTGTAACATAAAGTATTGCAATATGTTAGTAACAATCT
TGCAGCCTTCCTTTCCAAAGTTCATTTTATTTTGATCAGTTCAGTATATTGCACTAATTA
TTTTAGGTATTTTCATTATATGAAAGCTACCATGTGTCAGAGATGATTTAATCTATTTAA
GTGTTGGACTGCTAGGAGAACTTGTACATTTATGATAATGCAGAATTAGGAAAACGGTTC
ACCAGTGTTTAGTTTTATATTGAGGTGCTCAGGTTGGAATAAAGTGGTATAAAAAGCAAA
AAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_004162

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_004162.3, NP_004153.2
RefSeq Size:	2352 bp
RefSeq ORF:	648 bp
Locus ID:	5868
UniProt ID:	P20339
Cytogenetics:	3p24.3
Domains:	ras, RAN, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Endocytosis

Gene Summary: The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:16410077, PubMed:15378032). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity).[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer protein (isoform 1).