

Product datasheet for **SC107713**

RAB33B (NM_031296) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAB33B (NM_031296) Human Untagged Clone
Tag:	Tag Free
Symbol:	RAB33B
Synonyms:	SMC2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_031296 edited ATGGCTGAGGAGATGGAGTCGCTCGAGGCAAGCTTTTCGTCCAGCGGGGCAGTGTCA GGGGCCTCAGGGTTTTTGCCTCCTGCCCGCTCCCGCATCTTCAAGATAATCGTGATCGGC GACTCCAATGTGGGCAAGACATGCCTGACCTACCGCTTCTGCGCTGGCCGCTTCCCGAC CGACCCGAGGCCACGATAGGGGTGGATTTCGAGAACGAGCGGTGGAGATTGATGGGGAG CGCATCAAGATCCAGCTATGGGACACAGCAGGACAAGAACGATTGAGAAAGAGCATGGTT CAGCACTACTACAGAAATGTACATGCTGTTGTCTTCGTGTATGATATGACCAACATGGCT AGTTTTCATAGCCTACCATCTTGGATAGAAGAATGCAAACAACATTTGCTAGCCAATGAT ATACCACGGATTCTTGTGGAAATAAATGTGACTTGAGAAGTGCCATACAGGTACCCACA GACTTGGCACAAAAATTTGCTGACACACACAGTATGCCTTTGTTTGAACGTCTGCTAAA AACCCCAATGATAATGACCATGTGGAAGCTATATTTATGACCTTGGCTCATAAGCTTAAG AGCCACAAACCATTAAATGCTTAGTCAGCCCCCTGATAATGGAATTATCCTGAAGCCTGAA CCAAAGCCTGCAATGACGTGCTGGTGCTAA


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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_031296 unedited
 NGGGTTAGCATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCGGGGCT
 GGGTCAGTCAGGGCGCTGGGCCAGCCTCTCTGCAAGGCTGGCCTTCCGCGCTGCCGTGAA
 GCGCCCGACAGTCCCACGCCTGCCTAGGTAGACCGGCGCCAGCCGAGTGACGCCTGGC
 GTGTGGCCGCGGGCAGCGGCTCCCTGCGGCGGGGCGGGCGGGTGCCACACCTGTGCGGG
 CAAGGGCGGGGCGGAAGGTGCGCAGGCGCGCTCGGGGCTGGTGGGCGGTGGCTCCTGGG
 AAGTTGCGCAGCCGAAGTGGCCGCTGGCGCGCGCTCTTGCGGTGGCGTAATCTGTGAG
 CCTTTCTGTGTCTCTTTCTCCGCTCAGTTTGGGGCGGGTGGGGGAATGGCTGAGGA
 GATGGAGTCGTCGCTCGAGGCAAGCTTTTCGTCCAGCGGGGCAAGTGTGAGGGGCTCAGG
 GTTTTTGCCTCCTGCCGCTCCCGCATCTTCAAGATAATCGTGATCGGCGACTCCAATGT
 GGGCAAGACATGCCTGACCTACCGCTTCTGCGCTGGCCGCTTCCCGACCGCACCAGGC
 CACGATAGGGGTGGATTCCGAGAACGAGCGGTGGAGATTGATGGGGAGCGCATCAAGAT
 CCAGCTATGGGACACAGCCAGGACAGAACGATTAGAAAGAGCATGGTTCAGCACTACTA
 CAGAAATGTACATGCTGTTGTCTTCGTGTATGATATGACCAACATGGCTAGTTTTCATAG
 CCTACCATCTTGGATAGAAGATGCANNACACATTTGCTAGCCAATGATATACCACGGGAT
 TCTTGTTGGGAAATAAATGTGACTTTGAGAAGTGCCATACCAGGTACCCACAGACTTGGC
 ACAAAAT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_031296 unedited
 GACTGGTTTATTGGAACCTTCATGGGGNAAATGTAAACAGTGACACTATTCACAACAAAA
 TTACTTAGATTTTCATGAGGAAACATGTATTTGCAATATACTTTCAATAATGCATTGTTAT
 TAATAGCTAACTACATTAGATTCTGGGGTAGTTTCCTTTGGTGTCTCAAATTAAGACTT
 TTCCAAAACATGTCTGATATTTTAATTATTTTCAATTAAAGGTCATAGTTAAATA
 AATTCTACAGATTTTTTAAATGTGTGATTGTTCTTTAAAAATTAGTAATTAGTTGTTAG
 ATAGCTATCATTTTGAAGTGATTTTGCAACAGTGAAATGTTTTATAAATATTTTAAGAT
 ATTGAAAGCTTTAACCCATTCAACTGGTATGTTTTTAAAAATAAAACATATATATAA
 AAAATTAACAAATTTGTACAAATGAGATACAAATATTTTAAACTAATAAATATTACA
 GTTAAAAAATAAGTCCTTTACAGAACTGTAAAGGATATTACTTAATTCCTTACAAAAAG
 AAATAAAGTTACTCTTTTAAACCATAATAATAGTAATAAAAAACCATAAATGTGCTTG
 GAAAGTCTATAAACTTTCTTCCCCACTTTAGAAAATATTTTGAAAAGCGATAAACAGAT
 TCCCTTCTTTAAAAAATGTTGTTACACCCATCATAGTTACTACAGCTGTCATTGTTTTA
 TTACANAATAAGTTATAAATCAAGGTTAATTTGATACAAAGTAAACAATTTTTAAATTC
 CAGCATGATTAAGAANACATGATNNCTCCTAATGCANNATAAGCCNATTTGAGCTCCTAT
 ACTTAAATGGNATAATCACTTCCATANATTATTTTCAGNNTAGTCATTAATAGAATAC
 CTTGGCCTTATAGTAATTATCAGNNGGACCCCTTGATGATACCAATCTAACTGATAGA
 TCCTTTTATTGATTCCAATCTGAAACCGAGTCATATCATTGCTTAATTCTCAATA

Restriction Sites:

NotI-NotI

ACCN:

NM_031296

Insert Size:

4000 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_031296.1](#), [NP_112586.1](#)

RefSeq Size: 3876 bp

RefSeq ORF: 690 bp

Locus ID: 83452

UniProt ID: [Q9H082](#)

Cytogenetics: 4q31.1

Domains: ras, RAN, RAS, RHO, RAB

Protein Families: Druggable Genome

Gene Summary: This gene encodes a small GTP-binding protein of the Rab GTPase family, whose members function in vesicle transport during protein secretion and endocytosis. Rab GTPases are active, membrane-associated proteins that recruit effector proteins in the GTP-bound state and inactive cytosolic proteins when in a GDP-bound state. The protein encoded by this gene is ubiquitously expressed and has been implicated in Golgi to endoplasmic reticulum cycling of Golgi enzymes. In addition, this protein regulates Golgi homeostasis and coordinates intra-Golgi retrograde trafficking. Allelic variants in this gene have been associated with Dyggve-Melchior-Clausen syndrome and Smith-McCort dysplasia 2, which are autosomal recessive spondyloepimetaphyseal dysplasias characterized by skeletal abnormalities. [provided by RefSeq, Sep 2016]