

## Product datasheet for **RC221508**

### **RAB23 (NM\_183227) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RAB23 (NM_183227) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAB23
Synonyms:	HSPC137
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221508 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTGGAGGAAGATATGGAAGTCGCCATAAAGATGGTGGTTGTAGGGAATGGAGCAGTTGGAAAATCAA  
GTATGATTCAGCGATATTGCAAAGGCATTTTTACAAAAGACTACAAGAAAACCATTGGAGTTGATTTTTT  
GGAGCGACAAATTCAAGTTAATGATGAAGATGTCAGACTAATGTTATGGGACACTGCAGGTCAGGAGGAA  
TTTGATGCAATTACAAAGCCTACTATCGAGGAGCCCAGGCTTGTGTCTCGTGTCTCTACCACAGATA  
GGGAATCTTTTGAAGCAGTTTCCAGTTGGAGAGAGAAAGTAGTAGCCGAAGTGGGAGATATACCAACTGT  
ACTTGTGCAAAAACAGATTGATCTTCTGGATGATTCTTGTATAAAGAATGAGGAAGCTGAGGCACTGGCA  
AAAAGGTTAAAGTTAAGATTCTACAGAACATCAGTGAAAGAAGATCTAAATGTGAATGAAGTTTTAAGT  
ATTTGGCTGAAAAATACCTTCAGAACTCAAACAACAAATAGCTGAGGATCCAGAATAACGCATTCAAG  
TAGTAAACAAGATTGGTGTCTTAAATACATCTGGTGAAGTCACTCCGGTCAGAATTCAGGTACCCCTCAAT  
GGTGGAGATGTCATCAATCTTAGACCAACAAACAAAGGACCAAGAAAAACAGAAATCCTTTTAGCAGCT  
GTAGCATACCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC221508 protein sequence  
Red=Cloning site Green=Tags(s)

MLEEDMEVAIKMVVVNGAVGKSSMIQRYCKGIFTKDYKKTIGVDFLERQIQVNDEDVRLMLWDTAGQEE  
 FDAITKAYYRGAQACVLVFSTTDRESFEAVSSWREKVVAVVDIPTVLVQNKIDLLDDSCIKNEEAELA  
 KRLKLRFYRTSVKEDLVNEVFKYLAEKYLQKLKQQAEDPELTHSSSNKIGVFNTSGGSHSGQNSGTLN  
 GGDVINLRPNKQRTKKNRNPFSSCSIP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6323\\_g08.zip](https://cdn.origene.com/chromatograms/mk6323_g08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_183227

**ORF Size:** 711 bp

**OTI Disclaimer:** 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_183227.2](#)

**RefSeq Size:** 4391 bp

**RefSeq ORF:** 714 bp

**Locus ID:** 51715

**UniProt ID:** [Q9ULC3](#)

**Cytogenetics:** 6p12.1-p11.2

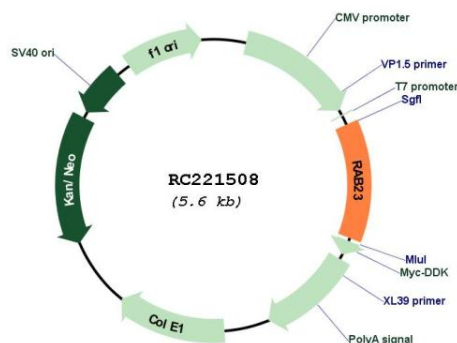
**Protein Families:** Druggable Genome

**Protein Pathways:** Hedgehog signaling pathway

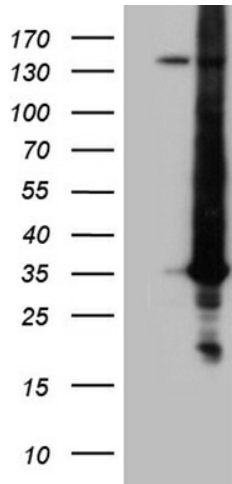
**MW:** 26.7 kDa

**Gene Summary:** This gene encodes a small GTPase of the Ras superfamily. Rab proteins are involved in the regulation of diverse cellular functions associated with intracellular membrane trafficking, including autophagy and immune response to bacterial infection. The encoded protein may play a role in central nervous system development by antagonizing sonic hedgehog signaling. Disruption of this gene has been implicated in Carpenter syndrome as well as cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

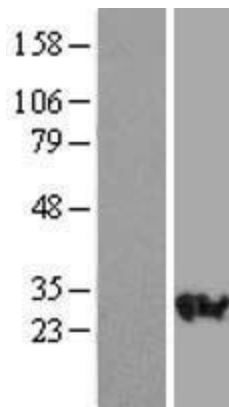
### Product images:



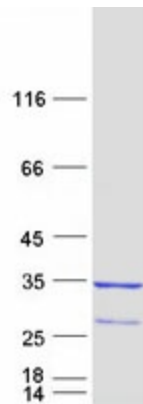
Circular map for RC221508



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RAB23 (Cat# RC221508, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RAB23 (Cat# [TA809380])(1:2000). Positive lysates [LY405187] (100ug) and [LC405187] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405187]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221508 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAB23 protein (Cat# [TP321508]). The protein was produced from HEK293T cells transfected with RAB23 cDNA clone (Cat# RC221508) using MegaTran 2.0 (Cat# [TT210002]).