

## Product datasheet for **MC228520**

### Racgap1 (NM\_001253809) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Racgap1 (NM_001253809) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Racgap1
Synonyms:	AI227039; AI327394; Band25; gtl11; GTPase; MgcRacGAP; mKIAA1478
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228520 representing NM\_001253809  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATACTACAATGGTGAATTTGTGGACTCTGTTTGTGAGCAGCTTGTGCGCCGGATGGAGATTATCAATG  
 AAGGAAATGAAAGCATTGAATTCATCCAGTTGTGAAGGACTTCGAGGACTTCGAAAGAAGTATCAAAG  
 AACCAACCAGGAGCTGGAGAAATTCAAAGACCTATTGTTGAAAGCAGAGACTGGGCGGAGCGCCCTGGAC  
 GTGAAGCTGAAGCATGCCGTAATCAAGTGGACGTGGAGATCAAGCGGAGGCAGCGCGCTGAGGCAGAGT  
 GTGCAAAGCTGGAACAACAGATTGAGTTCGAGACATACTCATGTGTGACACATCTGGCAGTATTCA  
 GCTGAGCGAGGAACAAAATCAGCTCTCGCTTTCCTCAACCGAGGCCAAGCATCCAGTGGCCACGCCGCGC  
 AACATAGACTGTCAACGATTGATGAATCTGGTCCATTTATCAGATATCAGCTTTGACAAGACTGATG  
 AATCACTGGACTGGGATTCTTCTTGGTGAAGAATTTCAAATGAAGAAACGAGAGAAGAGGCGCTCCAA  
 CAGTAGACAGTTCATCGACGGCCCTCTGGCCGTGAAGAAAATTGTTCCATTGGCTCTACAGTAGAC  
 CAGGCAAATGAATCAATAGTTGCAAAAACCTACAGTACTGTTCCAGTGTGGGGACCCATTGAAGCTG  
 TGCTACTATTGAGACATTGCCGTCCTGGACCAGGAGTCCGCGGAAGTCAGGACCTTTACAACCTGTGAA  
 CAGTACTCCGCTCTGAACAGCAGGCCACTGGAGCCAAGAAGTACACAGACAATTTGGGCACACCTCAG  
 AACTACTGGAGGCATGCGCTTGCACGACTTCGTCTCAAAGACGGTTATTAAGCCTGAATCTTGTGTTCCGT  
 GTGAAAGCGGATCAAGTTTGGCAAGCTGTCTGAAAGTGTGAGACTGTCGTTTGGTCTCCCATCCAGA  
 ATGTGGGACCGATGTCCTTCCCTGCATCCCCCTGGTGGGACACCGGTTAAGATTGGAGAGGGC  
 ATGTGGCCGACTTCGTGTGCGAGGCTTCTCCATGATCCCTGCCATTGTCGTGAGCTGTGTCAATGAGA  
 TCGAGCAGCGAGGCCCTGACTGAGCAGGCTGTACAGGATCTCAGGCTGTGACCGCACAGTGAAGAAGT  
 GAAAGAAAATTCCTTAAGGTGAAAACCTGTCCTCCTCAGCAAAGTGGACGATATCCAGTCTACTGTC  
 AGCCTCCTGAAGGACTTCTGCGCAACCTCAAAGAGCCCTCCTGACCTTCTGGCTGAGCAAAGCCTTCA  
 TGGAGGCAGCAGAGATAACAGATGAAGACAACAGCACAGCCGCAATGTACCAGGCTGTGAGTGGAGTGC  
 CCAGGCCAACAGGGACACGCTAGCCTTCTTATGATCCACCTACAGAGAGTGTCTCAGAGTCCAGACACT  
 AAGATGGATATTGCCAATCTAGCTAAAGTCTTGGCCCTACAATAGTTGCCATACTGTGCCAATCCAG  
 ATCCAGTGACAATGTTCCAGGACATCAAACGTGAGCTCAAGGTGGTGGAGCGCTACTCTCTCCCTT  
 GGAGTACTGGAATCAGTTCATGATGGTGGACCAAGAGAACATAGACAGCCAGCGAGGCAATGAAACTCA  
 ACACCACGCACACAGACGTTAAAGTGAAGTACTGGGCTGTGACCACTCCTGAATTCAGCTTGTCA  
 AGACTCCTTTATCAAGTTCCTGTACAGAGGTTGTACAACCTCCTCAAGAGCACCCAGATTTGGGAA  
 CAAGAGCAAGTCTGCCACCAACTTAGGTCAACAGGGCAAATTTTCCCTGCTCCGTACCTCAAGTAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001253809
- Insert Size:** 1887 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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\\_001253809.1](#), [NP\\_001240738.1](#)

**RefSeq Size:** 2930 bp

**RefSeq ORF:** 1887 bp

**Locus ID:** 26934

**UniProt ID:** [Q9WVM1](#)

**Cytogenetics:** 15 F1

**Gene Summary:** Component of the centralspindlin complex that serves as a microtubule-dependent and Rho-mediated signaling required for the myosin contractile ring formation during the cell cycle cytokinesis. Required for proper attachment of the midbody to the cell membrane during cytokinesis. Plays key roles in controlling cell growth and differentiation of hematopoietic cells through mechanisms other than regulating Rac GTPase activity. Also involved in the regulation of growth-related processes in adipocytes and myoblasts. May be involved in regulating spermatogenesis and in the RACGAP1 pathway in neuronal proliferation. Shows strong GAP (GTPase activation) activity towards CDC42 and RAC1 and less towards RHOA. Essential for the early stages of embryogenesis. May play a role in regulating cortical activity through RHOA during cytokinesis. May participate in the regulation of sulfate transport in male germ cells.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) lacks a segment in the 5' UTR, compared to variant 1. Variants 1-3 encode the same protein.