

## Product datasheet for **MR230730**

### Racgap1 (NM\_001253808) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Racgap1 (NM_001253808) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Racgap1
Synonyms:	AI227039; AI327394; Band25; gtl11; GTPase; MgcRacGAP; mKIAA1478
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR230730 representing NM\_001253808  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGATACTACAATGGTGAATTTGTGGACTCTGTTTGAGCAGCTTGTGCGCCGGATGGAGATTATCAATG  
 AAGGAAATGAAAGCATTGAATTCATCCAGGTTGTGAAGGACTTCGAGGACTTCCGAAAGAAGTATCAAAG  
 AACCAACCAGGAGCTGGAGAAATTCAAAGACCTATTGTTGAAAGCAGAGACTGGGCGGAGCGCCCTGGAC  
 GTGAAGCTGAAGCATGCCCGTAATCAAGTGGACGTGGAGATCAAGCGGAGGCAGCGCGCTGAGGCAGAGT  
 GTGCAAAGCTGGAACAACAGATTGAGCTGATTCGAGACATACTCATGTGTGACACATCTGGCAGTATTCA  
 GCTGAGCGAGGAACAAAAATCAGCTCTCGCTTTCCTCAACCGAGGCCAAGCATCCAGTGGCCACGCCGGC  
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 CAGGCAAATGAATCAATAGTTGCAAAAACCTACAGTGAAGTTCAGTGTCCAGTGTGGGGACCCATTGAAGCTG  
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 CAGTGAAGTCCGCTCTGAACAGCAGGCCACTGGAGCCAAGAAGTACACAGACAATTTGGGCACACCTCAG  
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 ATGTCGGGACCGATGTCCTTCCCTGCATCCCCCTGGTGGGACACCGGTTAAGATTGGAGAGGGC  
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 ACACCACGCACACAGACGTTAAAGTGAAGTACTGGGCCTGTGACCACTCCTGAATTCAGCTTGTCA  
 AGACTCCTTTATCAAGTTCCTGTACAGAGGTTGTACAACCTCCTCAAGAGCACACCCAGATTTGGGAA  
 CAAGAGCAAGTCTGCCACCAACTTAGGTCAACAGGGCAAATTTTCCCTGCTCCGTACCTCAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

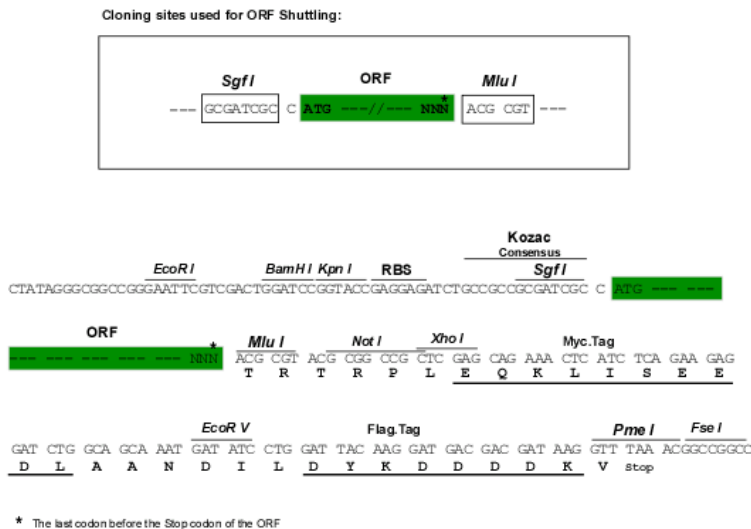
>MR230730 representing NM\_001253808  
 Red=Cloning site Green=Tags(s)

MDTTMVLNWLFEQLVRRMEIINEGNESIEFIQVVKDFEDFRKKYQRTNQELEKFKDLLLKAETGRSALD  
 VKLKHARNQVDVEIKRRQRAEAECAKLEQQIQLIRDILMCDTSGSIQLSEEKLSALAFNRGQASSGHAG  
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 MLADFVSQASPMIPAIIVVSCVNEIEQRGLTEAGLYRISGCDRTVKELKEKFLKVKTVPLLSKVDDIHVIC  
 SLLKDFLRNLKEPLLTFWLKAFMEAAEITDEDNSTAAMYQAVSELPQANRDTLAFLEMIHLQRVVSQSPDT  
 KMDIANLAKVFGPTIVAHTVNPDPVTFMFDIKRQLKVVVERLLSLPLEYWNQFMMVDQENIDSQRGNNGS  
 TPRTPDVKVSLGPTTPEFQLVKTPLSLSSLSQRLYNLSKSTPRFNGKSKSATNLGQQGKFFPAPYLK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001253808

ORF Size: 1884 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\\_001253808.1](#), [NP\\_001240737.1](#)

RefSeq Size: 2940 bp

RefSeq ORF: 1887 bp

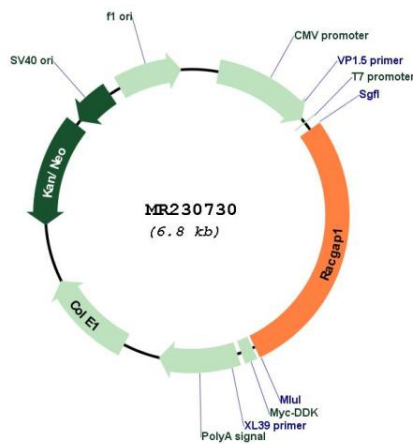
Locus ID: 26934

UniProt ID: [Q9WVM1](#)

**Cytogenetics:** 15 F1  
**MW:** 70.6 kDa

**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]

**Product images:**



Circular map for MR230730