

Product datasheet for **MG216578**

Racgap1 (NM_012025) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Racgap1 (NM_012025) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Racgap1
Synonyms:	AI227039; AI327394; Band25; gtl11; GTPase; MgcRacGAP; mKIAA1478
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG216578 representing NM_012025
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAATACTACAATGGTGAATTTGTGGACTCTGTTTGTGAGCAGCTTGTGCGCCGGATGGAGATTATCAATG
 AAGGAAATGAAAGCATTGAATTCATCCAGTTGTGAAGGACTTCGAGGACTTCGAAAGAAGTATCAAAG
 AACCAACCAGGAGCTGGAGAAATTCAAAGACCTATTGTTGAAAGCAGAGACTGGGCGGAGCGCCCTGGAC
 GTGAAGCTGAAGCATGCCGTAATCAAGTGGACGTGGAGATCAAGCGGAGGCAGCGCGCTGAGGCAGAGT
 GTGCAAAGCTGGAACAACAGATTGAGCTGATTCGAGACATACTCATGTGTGACACATCTGGCAGTATTCA
 GCTGAGCGAGGAACAAAAATCAGCTCTCGCTTTCCTCAACCGAGGCCAAGCATCCAGTGGCCACGCGCCGC
 AACATAGACTGTCAACGATTGATGAATCTGGTCCATTTTATCAGATATCAGCTTTGACAAGACTGATG
 AATCACTGGACTGGGATTCTTCTTTGGTGAAGAATTTCAAATGAAGAAACGAGAGAAGAGGCGCTCCAA
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 CAGGCAAATGAATCAATAGTTGCAAAAACCTACAGTGAAGTTCAGTGTCCAGTGTGGGGACCCATTGAAGCTG
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 AAGATGGATATTGCCAATCTAGCTAAAGTCTTTGGCCCTACAATAGTTGCCATACTGTGCCAATCCAG
 ATCCAGTGACAATGTTCCAGGACATCAAACGTGAGCTCAAGTGGTGGAGCGCTACTCTCTCCCTT
 GGAGTACTGGAATCAGTTCATGATGGTGGACCAAGAGAACATAGACAGCCAGCGAGGCAATGAAACTCA
 ACACCACGCACACAGACGTTAAAGTGAAGTACTGGGCTGTGACCACTCCTGAATTCAGCTTGTCA
 AGACTCCTTTATCAAGTTCCTGTACAGAGGTTGTACAACCTCCTCAAGAGCACACCCAGATTTGGGAA
 CAAGAGCAAGTCTGCCACCAACTTAGGTCAACAGGGCAAATTTTCCCTGCTCCGTACCTCAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG216578 representing NM_012025
 Red=Cloning site Green=Tags(s)

MDTTMVNLWTLFEQLVRRMEIINEGNESIEFIQVVKDFEDFRKKYQRTNQELEKFKDLLLKAETGRSALD
 VKLKHARNQVDVEIKRRQRAEAECALKEQQIQLIRDILMCDTSGSIQLSEEKQSALAFNLRGQASSGHAG
 NNRLSTIDESGILSDISFDKTDWSSLVKNFKMKKREKRRSNSRQFIDGPPGPVKKTCISIGSTVD
 QANESIVAKTTVTPSDGGPIEAVSTIETLPSWTRSRGKSGPLQPVNSDSALNSRPLEPRTDNDLGPQ
 NTGGMRLHDFVSKTVIKPESVPCGKRIKFGKLSLKCRCRLVSHPECRDRCPICIPPLVGPVKIGEG
 MLADFVSQASPMIPAIIVSVCVNEIEQRGLTEAGLYRISGCDRTVKELKEKFLKVKTVPLLSKVDDIHVIC
 SLLKDFLRNLKEPLLTFWLSKAFMEAAEITDEDNSTAAMYQAVSELPQANRDTLAFMIHLQRVQSQSPDT
 KMDIANLAKVFGPTIVAHTVPNPDVTFMQDIKRLKVVVERLLSLPLEYWNQFMMVDQENIDSQRGNNGS
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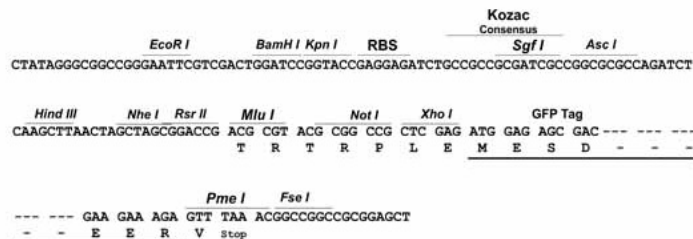
TRTRPLE – GFP Tag – V

Restriction Sites:

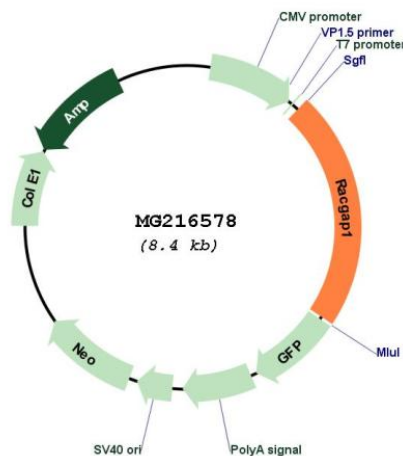
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_012025
 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:	<ol style="list-style-type: none">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_012025.7 , NP_036155.1
RefSeq Size:	3071 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]