

## Product datasheet for **RG226045**

### **RACGAP1 (NM\_001126103) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RACGAP1 (NM_001126103) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RACGAP1
Synonyms:	CYK4; HsCYK-4; ID-GAP; MgcRacGAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226045 representing NM\_001126103  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGATACTATGATGCTGAATGTGCGGAATCTGTTTGTAGCAGCTTGTGCGCCGGGTGGAGATTCTCAGTG  
 AAGGAAATGAAGTCCAATTTATCCAGTTGGCGAAGGACTTTGAGGATTTCCGTAAAAAGTGGCAGAGGAC  
 TGACCATGAGCTGGGAAATACAAGGATCTTTTGTGAAAGCAGAGACTGAGCGAAGTGCTCTGGATGTT  
 AAGCTGAAGCATGCACGTAATCAGGTGGATGTAGAGATCAAACGGAGACAGAGAGCTGAGGCTGACTGCG  
 AAAAGCTGGAACGACAGATTGAGCTGATTCGAGAGATGCTCATGTGTGACACATCTGGCAGCATTCAACT  
 AAGCGAGGAGCAAAAATCAGCTCTGGCTTTTCTCAACAGAGGCCAACCATCCAGCAGCAATGCTGGGAAC  
 AAAAGACTATCAACCATTGATGAATCTGGTTCATTTTATCAGATATCAGCTTTGACAAGACTGATGAAT  
 CACTGGATTGGGACTCTCTTTGGTGAAGACTTCAAACGAAGAAGAGAGAAAAGAGGCGCTCTACTAG  
 CCGACAGTTTGTGATGGTCCCCCTGGACCTGTAAGAAAACCTGTTCCATTGGCTCTGCAGTAGACCAG  
 GGAATGAATCCATAGTTGCAAAAACACTACAGTACTGTTCCCAATGATGGCGGGCCCATCGAAGCTGTGT  
 CCACTATTGAGACTGTGCCATATTGGACCAGGAGCCGAAGGAAAACAGGTAATTTACAACCTTGGAACAG  
 TGACTCCACCCTGAACAGCAGGCAGCTGGAGCCAGAAGTGTGAGACAGACAGTGTGGGCACGCCACAGAGT  
 AATGGAGGGATGCGCCTGCATGACTTTGTTTCTAAGACGGTTATTAACCTGAATCCTGTGTTCCATGTG  
 GAAAGCGGATAAAATTTGGCAAATATCTCTGAAGTGTGAGACTGTGCTGTGGTCTCTCATCCAGAATG  
 TCGGGACCGCTGTCCCCTCCCTGCATTCTACCTGTAGGAACACCTGTCAAGATTGGAGAGGGAATG  
 CTGGCAGACTTTGTGCTCCAGACTTCTCCAATGATCCCCTCCATTGTTGTGCATTGTGTAATGAGATTG  
 AGCAAAGAGGCTGACTGAGACAGGCTGTATAGGATCTCTGGCTGTGACCGCACAGTAAAAGAGCTGAA  
 AGAGAAAATTCCTCAGAGTGAAGAACTGTACCCCTCCTCAGCAAAGTGGATGATATCCATGCTATCTGTAGC  
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 AAGCAGCAGAAATCACAGATGAAGACAACAGCATAGCTGCCATGTACCAAGCTGTTGGTGAAGTGCCTCA  
 GGCCAACAGGGACACATTAGCTTTCCTCATGATCACTTGCAGAGAGTGGCTCAGAGTCCACATACTAAA  
 ATGGATGTTGCCAATCTGGCTAAAGTCTTTGGCCCTACAATAGTGGCCATGCTGTGCCCAATCCAGACC  
 CAGTGACAATGTTACAGGACATCAAGCGTCAACCAAGGTGGTTGAGCGCCTGCTTTCCTGCTCTGGA  
 GTATTGGAGTCAGTTCATGATGGTGGAGCAAGAGAACATTGACCCCTACATGTCATTGAAAACCTCAAT  
 GCCTTTTCAACACCACAGACACCAGATATTAAGTGTGATTTACTGGGACCTGTGACCACTCTGAACATC  
 AGCTTCTCAAGACTCCTCATCTAGTCCCTGTACAGAGAGTCCGTTCCACCCTACCAAGAACACTCC  
 TAGATTTGGGAGCAAAAGCAAGTCTGCCACTAACCTAGGACGACAAGGCAACTTTTTTGTCTCTCCAATG  
 CTAAG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG226045 representing NM\_001126103  
 Red=Cloning site Green=Tags(s)

MDTMMLNVRNLFELVRRVEILSEGNEVQFIQLAKDFEDFRKKWQRTDHELKGYKDLLMKAETERSALDV  
 KLKHARNQVDVEIKRRQRAEADCEKLERIQIQLIREMLMCDTSGSIQLSEEQKSALAFLNRGQPSSSNAGN  
 KRLSTIDESGSIILSDISFDKTDSELDWDSL VKTFKLLKREKRRSTRQFVDGPPGPVKKTRSIGSAVDQ  
 GNEISIVAKTTVTVPNDGGPIEAVSTIETVPYWTRSRRKGTLPWNSTLNSRQLEPRTE TDSVGT PQS  
 NGMRLHDFVSKTVIKPESCVPCGKRIKFGKLSLKRDCRVVSHPECRDRCLPCIPTLIGTPVKIGEGM  
 LADFVSQTSMPMIPSIIVHVCVNEIEQRGLTETGLYRISGCDRTVKELKEKFLRVKTVPLLSKVDDIHAICS  
 LLKDFLRNLKEPLLTFRLNRAFMEAAEITDEDNSIAAMYQAVGELPQANRDTLAFMIHLQRVAQSPHTK  
 MDVANLAKVFGPTIVAHAVPNPDVPTMLQDIKRPKVVERLLSLPLEYWSQFMMVQEINIDPLHVIENS  
 AFSTPQTPDIKVSLLGPVTTPEHQLLKTPSSSSLSQRVRSSTLTKNTPRFGSKSKSATNLGRQGNFFASPM  
 LK

**TRTRPLE** – GFP Tag – V

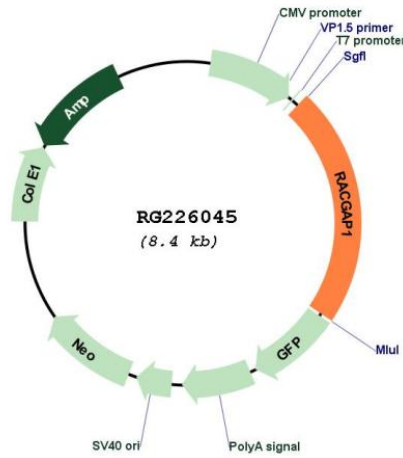
Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001126103

ORF Size: 1896 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001126103.2</a> , <a href="#">NP_001119575.1</a>
<b>RefSeq Size:</b>	3326 bp
<b>RefSeq ORF:</b>	1899 bp
<b>Locus ID:</b>	29127
<b>UniProt ID:</b>	<a href="#">Q9H0H5</a>
<b>Cytogenetics:</b>	12q13.12
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	This gene encodes a GTPase-activating protein (GAP) that is a component of the centralspindlin complex. This protein binds activated forms of Rho GTPases and stimulates GTP hydrolysis, which results in negative regulation of Rho-mediated signals. This protein plays a regulatory role in cytokinesis, cell growth, and differentiation. Alternatively spliced transcript variants have been found for this gene. There is a pseudogene for this gene on chromosome 12. [provided by RefSeq, Feb 2016]