

Product datasheet for **MG208840**

Rap1gds1 (NM_145544) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rap1gds1 (NM_145544) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Rap1gds1
Synonyms:	BC011279; GDS1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208840 representing NM_145544
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATAACCTCAGTGACACTTTAAAGAAGCTGAAGATAACAGCTGCTGACAGGACAGAGGGCAGTCTGG
 AAGGATGCTTGGATTGTCTGCTTCAAGCCTTGGCTCAGAATAATGCAGAAACAAGTGAAAAATACAAGG
 AAGTGAATTCTTCAGTTGTTTGCAAACTGTGTGACGCCACAGGCCTCCTGCACAGCCAAAGTAGCCAAC
 ATCATAGCAGAAGTAGCCAAAAATGAATTTATGCGAATCCCATGTGTAGATGCTGGATTGATTTACCAC
 TGGTACAGCTGTTAAATAGCAAAGACCAGGAAGTGTCTTCAAACGGGCAGGGCATTAGGAAACATATG
 CTACGATAGCCATTCCCTTCAGGCCAGCTTATTAGCATGGGTGTATCCCGACCTTAGTGAAGCTACTG
 GGCATTCAGTCCACAATGCAGCACTACCGAGATGTGTCTCGTTGCGTTCGGGAATTTAGCAGAACTTG
 AGTCAAGTAAAGAACAGTTTGTAGCACAAACATCGTGAAGAGCTGGTAAAAGTGTTCAGAAACAGAT
 AGAACACGATAAAAGAGAGATGATTTTTGAAGTCTAGCGCCGTTGGCAGAGCATGATGCTATTAAGCTG
 CAGCTGGTTGAAGCAGGTTTGGTAGAGTGTCTCTAGAGATCGTCCAACAGAAGTGGATAGCAACAAG
 AGGACGACGTTGCCGAGCTTAAAAGTCTTCTGACCTCATGGTTTTATTACTGCTTGGAGATGAGTCCAT
 GCAGAACTTTTTGAAGGAGGAAAAGGCAGTGTGTCCAAAGGGTCTCTCTGGATTCCATCGAATAAC
 CACCAGCTGCAGCTGGCTGGGGCATTAGCCATTGCAAAATTTGCCAGGAACGATGGAAATTTGATTGATA
 TGGTAGACAATGGGATTGTAGAAAACTCATGGATTTGCTGGACAGACACGTAGAAGACGGGAACGTGAC
 GGTGCAGCACGCCGCACTAAGTGCCTCAGGAATCTAGCCATCCCAGTTGTAATAAAGCAAAGATGTTA
 TCAGCTGGTGTACGGAGACGGTTTTGAAATTCCTTAAATCTGAAATGCCCCAGTTCAGTTCAAACCTC
 TGGGACGCTAAGAATGTTAATAGATGCACAAGCAGAAGCTGCTGAGCAACTGGGAAAGAATGCTAAACT
 GGTGGAGCGTTTTGGTTGAATGGTGTGAAGCCAAAGATCATGCCGCGTGTGGGCGAATCAAACAGACTG
 CTCTCTGCCCTCATCCGACACAGTAAATCAAAGATGTAATTAACCATTGTACAGAGTGGTGGCATCA
 AGCACCTGGTTACCATGGCAACTAGTGAACATGTAATCATGCAGAATGAAGCTCTTGTGCGCCTGGCACT
 GATAGCAGCCTTGGAACTGGGTCCCGCTGAGAAGGATCTCGCAAGTGTCTAGCTTGTTCAGATCTTACAC
 CGACTGTAGCAGATGAGAGAAGTGCCCGGAGATCAAGTACAATTCATGGTCTGATCTGCGCTCTCA
 TGGGATCCGAATCTCTATACAAGGAAGTACAGGATTTGGCCTTTCTAGATGTTGTCTCAAACCTCGAAG
 TCATGAGAACAAAAGTGTGCCAACAGGCCTCGCTTACAGAGCAGAGACTTACAGTGAAAAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208840 representing NM_145544
 Red=Cloning site Green=Tags(s)

MDNLSDTLKKLKI TAADRTEGSLEGCLDCLLQALAQNNAETSEKIQGSGILQLFANLLTPQASCTAKVAN
 IIAEVAKNEFMRI PCVDAGLISPLVQLLNSKDQEVLLQTGRALGNICYDSHSLQAQLISMGVIPTLVKLL
 GIHCHNAALTEMCLVAFGNLAELESSKEQFASTNIAEELVKLFKKQIEHDKREMI FEVLAPLAEHDAIKL
 QLVEAGLVECLLEIVQKQVDSNKEDDVAELKTASDLMVLLLLGDESMQKLFEGGKGSVFQRVLSWIPSN
 HQLQLAGALAIANFARNDGNCIHMVDNGIVEKLMDLLDRHVEDGNVTVQHAALSALRNLAIPVVNKAKML
 SAGVTETVLKFLKSEMPVQFKLLGTLRMLIDAQAEAAEQLGKNAKLVERLVEWCEAKDHAGVMGESNRL
 LSALIRHSKSKDVIKTI VQSGGIKHLVTMATSEHVIMQNEALVALALIAALELGP AEKDLASAQLVQILH
 RLLADERSAPEIKYNSMVLICALMGSESLYKEVQDLAFLDVVSKLRSHENKSVAAQASL TEQRLTVES

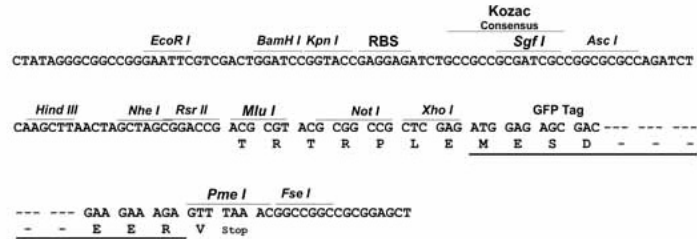
TRTRPLE - GFP Tag - V

Restriction Sites:

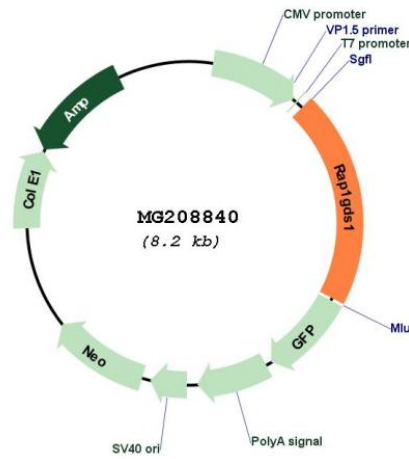
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_145544
ORF Size:	1674 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_145544.1
RefSeq Size:	3516 bp
RefSeq ORF:	1677 bp
Locus ID:	229877
UniProt ID:	E9Q6Q4
Cytogenetics:	3 H1
Gene Summary:	Stimulates GDP/GTP exchange reaction of a group of small GTP-binding proteins (G proteins) including Rap1a/Rap1b, RhoA, RhoB and KRas, by stimulating the dissociation of GDP from and the subsequent binding of GTP to each small G protein. Able to promote the Ca(2+) release from the endoplasmic reticulum via both inositol trisphosphate (Ins3P) and ryanodine sensitive receptors leading to a enhanced mitochondrial Ca(2+) uptake.[UniProtKB/Swiss-Prot Function]