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Product datasheet for RG226868

RAP1GAP (NM_001145658) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	RAP1GAP
Synonyms:	RAP1GA1; RAP1GAP1; RAP1GAPII; RAPGAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG226868 representing NM_001145658
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCGGCCGGAAGCGCAGCTTCACCTTCGGGGCCTACGGCGGGGTGGACAAGTCCTTCACTTCTCGCC
GGAGTGTGTGGAGGAGCGATGGGCAGAACCAGCACTTCCCTCAGGCACTAGACCTGTCACGAGTGAACTT
AGTTCCCTCCTATACTCCTTCACTCTACCCTAAGAACACAGATCTATTTGAGATGATTGAGAAGATGCAG
GGAAGCAGGATGGATGAACAACGCTGCTCCTTCCCGCCGCCCCTCAAAACAGAGGAGGACTACATTCCAT
ACCCGAGCGTGCACGAGGTCTTGGGGCGAGAAGGACCCTTCCCCCTCATCCTGCTGCCCCAGTTTGGGGG
CTACTGGATTGAGGGCACCAACCACGAAATCACCAGCATCCCCGAGACAGAGCCACTGCAGTCGCCCACA
ACCAAGGTGAAGCTCGAGTGCAACCCCACAGCCCGCATCTACCGGAAGCACTTTCTCGGCAAGGAGCATT
TCAATTACTACTCACTGGACGCTGCCCTCGGCCACCTTGTCTTCTCACTCAAGTACGATGTCATCGGGGA
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CTCACCGAGTTCCCTAATGTTGTCCAGATGGCAAAGTTGGTGTGTGAAGACGTCAATGTGGATCGGTTCT
ATCCTGTGCTCTACCCCAAGGCTTCCCGGCTCATCGTCACCTTTGACGAGCATGTCATCAGCAATAACTT
CAAGTTTGGCGTCATTTATCAGAAGCTTGGGCAGACCTCCGAGGAAGAACTCTTCAGCACCAATGAGGAA
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GAGGAGGCCTGGACGTGACCCACGGGCAGACGGGGACCGAATCTGTGTACTGCAACTTCCGCAACAAGGA
GATCATGTTTCACGTGTCCACCAAGCTGCCATACACGGAAGGGGACGCCCAGCAGTTGCAGCGGAAGCGG
CACATCGGGAACGACATCGTGGCTGTGGTCTTCCAGGATGAGAACACTCCTTTCGTGCCCGACATGATCG
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CAGGCCTGGAGAGCGTGTCATCCTCAGGAACACCCCACAAGCGGGACTCCTTCATCTATAGCACGTGGCT
GGAGGACAGTGTCAGCACCACTAGTGGGGGCAGCTCCCCAGGCCCCTCTCGATCACCCCACCCAGACGCC
GGCAAGTTGGGGGACCCTGCGTGTCCCGAGATCAAGATCCAGCTGGAAGCATCTGAGCAGCACATGCCCC
AGCTGGGCTGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

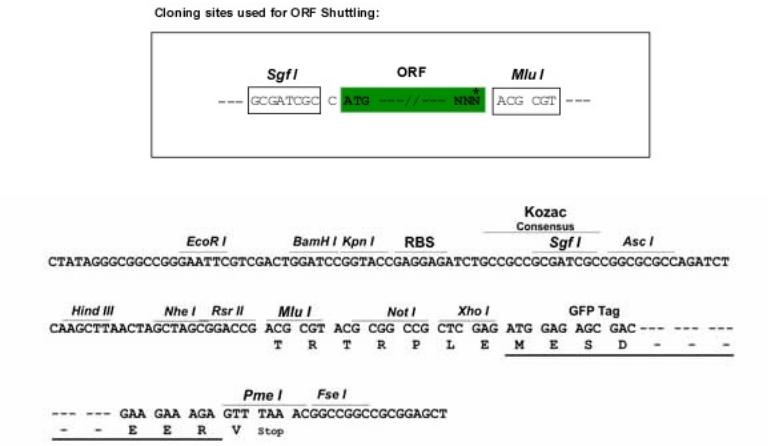
>RG226868 representing NM_001145658
Red=Cloning site Green=Tags(s)

MSGRKRSFTFGAYGGVDKSFTSRRSVWRSDGQNQHFPQALDLSRVNLVPSYTPSLYPKNTDLFEMIEKMQ
GSRMDEQRCSFPPPLKTEEDYIPYPSVHEVLGREGPFPLILLPQFGGYWIEGTNHEITSIPETEPLQSPT
TKVKLECNPTARIYRKHFLGKEHFNYYSLDAALGHLVFSLKYDVIGDQEHLRLLLRTKCRTYHDVIPISC
LTEFPNVVQMAKLVCEDVNVDRFYPVLYPKASRLIVTFDEHVISNNFKFGVIYQKLGQTSEEELFSTNEE
SPAFVEFLEFLGQKVKLQDFKGFRGGLDVTHGQTGTESVYCNFRNKEIMFHVSTKLPYTEGDAQQLQRKR
HIGNDIVAVVFQDENTPFVPDMIASNFLHAYVVVQAEGGGPDGPLYKVSVTARDDVPFFGPPLPDPAVFR
KGPEFQEFLLTKLINAEYACYKAEKFAKLEERTRAALLETLYEELHIHSQSMMGLGGDEDKMENGSGGGG
FFESFKRVIRSRSQSMDAMGLSNKKPNTVSTSHSGSFAPNNPDLAKAAGISLIVPGKSPTRKKSGPFGSR
RSSAIGIENIQEVQEKRESPPAGQKTPDSGHVSQEPKSENSSTQSSPEMPTTKNRAETAAQRAEALKDFS
RSSSSASSFASVVEETEGVDGEDTGLESVSSSGTPHKRDSFIYSTWLEDSVSTTSGGSSPGPSRSPHPDA
GKLGDPACPEIKIQLEASEQHMPQLGC

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001145658

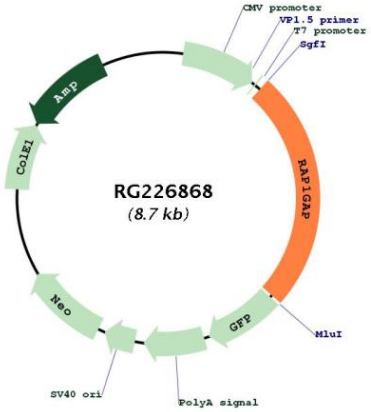
ORF Size: 2181 bp

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001145658.3
RefSeq Size:	3301 bp
RefSeq ORF:	2184 bp
Locus ID:	5909
UniProt ID:	P47736
Cytogenetics:	1p36.12
Gene Summary:	This gene encodes a type of GTPase-activating-protein (GAP) that down-regulates the activity of the ras-related RAP1 protein. RAP1 acts as a molecular switch by cycling between an inactive GDP-bound form and an active GTP-bound form. The product of this gene, RAP1GAP, promotes the hydrolysis of bound GTP and hence returns RAP1 to the inactive state whereas other proteins, guanine nucleotide exchange factors (GEFs), act as RAP1 activators by facilitating the conversion of RAP1 from the GDP- to the GTP-bound form. In general, ras subfamily proteins, such as RAP1, play key roles in receptor-linked signaling pathways that control cell growth and differentiation. RAP1 plays a role in diverse processes such as cell proliferation, adhesion, differentiation, and embryogenesis. Alternative splicing results in multiple transcript variants encoding distinct proteins. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RG226868