

Product datasheet for **MR211040**

Rapgef3 (NM_144850) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rapgef3 (NM_144850) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rapgef3
Synonyms:	2310016P22Rik; 9330170P05Rik; Epac; Epac1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR211040 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGTGTGAAGAGAATGCACCGTCCCGCTGCTGCTCTTACCAGCTAGTGTTCGAGCACCGGCGCCCA
GCTGCATCCAGGGACTCCGCTGGACACCACTTACCAACAGCGAGGACTCCCTGGATTTCAGAGTGAGTCT
GGAGCAGGCCACCACAGAGCATGTGCACAAGGCAGGGAAGCTCCTGCACCGCCATCTCTTGCCACGTAC
CCTACCCTCATCCGAGACAGAAAATACCATCTGCGACTATATCGGCATTGCTGCTCTGGCCGGGAGCTAG
TGGATGGGATCTTGGCTCTGGGCTTGGGGTCCACTCACGGAGCCAAGCCGTGGGCATCTGCCAAGTGT
GCTGGATGAGGGTGCCCTTTGTCATGTA AACATGACTGGACCTCCAGGACCGAGATGCCAATTCTAC
AGGTTCCCTGGACCGGAGCCGAGCCTACAGGAACTCAAGATGTGAAGAGGAGCTTGTGAGGCTATGG
CCCTCCTGTCCCAGCGAGGGCCTGATGCCCTACTCACCGTGGCGCTCCGGAAGCCCCAGGTGAGCGTAC
GGATGAAGAACTGGACCTGATCTTTGAAGAGCTGCTGCATATCAAGGCGGTGGCACACCTTTCTAACTCG
GTGAAGCGGGAAGTAGCTGCTGTTCTGCTCTTTGAACCACACAGCAAGGCAGGAAGTGTGTTGTTACGCC
AGGGGGACAAGGGTACCTCGTGGTACATTATCTGGAAGGGATCTGTCAATGTGGTGACCCATGGCAAGGG
GCTGGTGACCACGTTGCACGAGGGAGATGACTTTGGACAGCTGGCTCTGGTGAACGACGCACCTCGGGCA
GCCACCATCATCTTCGAGAAAAAAGTGTCACTTTCTGCGTGTGGACAAGCAGGACTTCAACCGCATCA
TCAAGGATGTGGAAGCAAAAACCATGAGACTGGAAGAACACGGCAAGTGGTCTTAGTTCTGGAGAGAAC
CTCTCAGGGTGTGGCCCTTCCCGTCCCCGACCCAGGCAGGAACCGGTATACGGTATGTCTGGCACC
CCAGAGAAAACTCTAGAAGTGTGTTGGAGGCTATGAGACCGGATTCCAGTGCTCATGACCAACAGAGA
CGTTCCTCAGTGACTTCTGCTGACCCACAGTCTTTCATGCCACAGCAGCTTCTCACTGCCCTCCT
GCACCATTCCACGTGGAGCCAGCAGACCTGCTGGAGGCAGCGAGCAGGAGCACAGCACCTACATCTGC
AACAAAGAGGCAGCAGATCCTGCGCTAGTTGGCCGATGGGTGGCCCTGTATAGCCCGATGCTCCTACTCGG
ATCCCGTGGCCACCAGCTTCTCCAGAACTCTCAGACCTGGTGAGCAGAGATGCCCGACTTAGCAACTT
GCTGAGGGAACAGTATCCAGAGAGACGGCGACACCACAGGTTGGAATAAGGCTGTGGAAACGTATCTCT
CAGACCAAGGCCCGAATGCACCTGTTTGGCTCCCTAACAGGAGGAACCCCTCCCAAGCAGCGCGGGT
CCATCCGAGTTGGGGACAAAGTCCCTACGACATCTGCAGACCTGACCACTCAGTGTGACCTGCACCT
GCCGGTGACGGCCTCGGTGAGAGAAGTGTGGCAGCTTTGGCCATGAGGACCACTGGACCAAGGGACAG
GTGTTGGTGAAGTCAATTCTGCCGGTGTGTCGTTGGCTTGCAGCCAGATGCCCGTGGTGTGGCCACAT
CCCTGGGGCTCAACGAGCGGCTCTTGTGTCGACCCACAGGAAGTGCATGAGCTGACCCACACCTGA
GCAGCTGGGCCCCACTCTGGGTTCTTCTGAGATGCTGGACCTAGTGAGCGCAAGGACCTGGCAGGCCAG
CTGACCGACCATGACTGGAACCTCTTCAACAGGATCCACCAGGTGCAGGAGCACCTGCGGGATGTACCA
CCGCGAACCTGGAGCGCTTATGCGCCGCTTCAACGAGCTGCAGTACTGGGTGGCCACAGAGCTCTGTCT
CTGCCCTGTTCTGGCTCCCGGGCTCAGTACTCAGGAAGTTCATCAAGCTGGCAGCCACCTCAAGGAG
CAGAAGAACCTCAACTCTTCTTGGCGTATGTTTGGCTCAGCAACTCGGCCATCAGCCGGCTGGCC
ACACCTGGGAGCGCTGCCCATAAAGTACGGAAGCTGTACTCAGCCCTGGAAGGTTGCTGGACCTTC
CTGGAACCACCGAGTGTACCGATTGGCTCTCACCAGCTCTCCCTCCTGTCATCCCCTCATGCCCTG
CTGCTCAAAGACGTGACCTTATCCATGAGGGGAACCACACACTGGTAGAGAACCTCACTAACTTTGAGA
AGATGCGGATGATGGCCAGAGCGGTGCGGATGCTTACCACCTGCCGAAGTACAGTACCGCGCTCTATC
ACCACTCAGAAGCCGAGTGTCCACATCCACGAGGACAGCCAGGGATCAAGGATCTCCACGTGTTCTGAG
CAGTCCCTGAGCACCCGGAGTCCAGCCAGCACCTGGGCTTATGTCCAGCAGCTGAAGGTCATTGACAACC
AGCGGGAAGTGTCCCGCTCTCCCGGGAGCTGGAACCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211040 protein sequence
 Red=Cloning site Green=Tags(s)

MVLKRMHRPRCCSYQLVFEHRRPSCIQGLRWTPLTNSEDSLDFRVSLEQATTEHVHKAGKLLHRHLLATY
 PTLIRDRKYHLRLYRHCCSGRELVDGILALGLGVHSRSQAVGICQVLLDEGALCHVKHDWTFQDRDAQFY
 RFPGPEPEPTGTQDVEEELVEAMALLSQRGPDALLTVALRKPPGQRTDEELDLIFEELLHIKAVAHLSNS
 VKRELAAVLLFEPHAKAGTVLFSQGDKGTSWYIWKGSVNVVTHGKGLVTTLHEGDDFGQLALVNDAPRA
 ATIILRENNCHFLRVDKQDFNRIKDV EAKTMRLEEKGKVVVLV LERTSQGAGPSRPPTPGRNRYTVMSGT
 PEKILELLEAMRPDSSAHDP TETFLSDFLLTHSVFMPSTQLFTALLHHFHVEPADPAGGSEQEHSTYIC
 NKRQQILRLVGRWVALYSPMLHSDPVATSFLQKLSDLVSRDARLSNLLREQYPERRRHHRENGCGNVSP
 QTKARNAPVWLPNQEEPLSSAGAIRVGDKVPYDICTPDHVS LTLHL PVTASVREVMAALAHEDHWTKGQ
 VLVKVN SAGDVVGLQPDARGVATSLGLNERL FVVD PQEVHELTPHPEQLGPTLGSSEMLDLVSAKDLAQ
 L TDHDWNLFNRIHQVQEHLRDVTTANLERFMRRFNELQYVWATELCLCPVPGSRAQLLRKFIKLAHLKE
 QKNLNSFFAVMFGLSNSAISRLAHTWERLPHKVRKLYSALERLLDPSWNHRVYRLALTKLSPPVIPFMPL
 LLKDVTFIHEGNHTLVENLINF EKMRMMARAVRMLHHC RSHSTAPLSPLRSRVSHIHEDSQGSRI STCSE
 QSLSTRSPASTWAYVQQLKVIDNQRELSRLSRELEP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

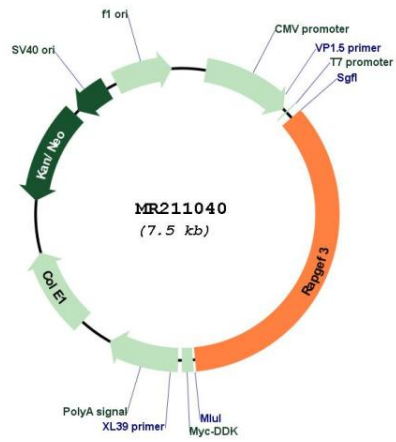
Sgfl-MluI

Cloning Scheme:



ACCN:	NM_144850
ORF Size:	2631 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_144850.1 , NP_659099.1
RefSeq Size:	3801 bp
RefSeq ORF:	2757 bp
Locus ID:	223864
UniProt ID:	Q8VCC8
Cytogenetics:	15 F1
MW:	99.2 kDa
Gene Summary:	Guanine nucleotide exchange factor (GEF) for RAP1A and RAP2A small GTPases that is activated by binding cAMP. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which it activates the PI3K gamma complex and which is involved in angiogenesis. Plays a role in the modulation of the cAMP-induced dynamic control of endothelial barrier function through a pathway that is independent on Rho-mediated signaling. Required for the actin rearrangement at cell-cell junctions, such as stress fibers and junctional actin (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211040