

Product datasheet for **RC239661**

Epac2 (RAPGEF4) (NM_001282900) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epac2 (RAPGEF4) (NM_001282900) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAPGEF4
Synonyms:	CAMP-GEFII; CGEF2; EPAC; EPAC 2; EPAC2; Nbla00496
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RC239661 representing NM_001282900
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGGACTTCTGGCTCCTCCTTATGGTGTATGGAACCGGGCTCAACAATGACAGGATTCCTGACA
 AGGAGAACGTCCCTTCAGAGAAGATCCTCAGAGCTGGAATAATTTACGAAATGCCATTCCTCTCGAGC
 ACCTCACATGATAAGAGATAGAAAATACCACCTAAAGACATACAGACAATGCTGTGTGGAACTGAACTG
 GTGGACTGGATGATGCAGCAGACACCATGTGTTCACTCCCGGACTCAAGCTGTTGGCATGTGGCAAGTCC
 TGTTAGAAGATGGTGTCTCAACCACGTGGACCAGGAGCACATTTCCAAGACAAATATTTATTCTATCG
 ATTTCTGGATGATGAGCACGAGGATGCCCTTTGCCTACTGAGGAGGAGAAGAAGGAGTGTGATGAGGAG
 CTCCAGGACACCATGCTGCTGTGCACAGATGGGCCCGACGCCACATGAGGATGATCCTTCGCAAAC
 CACCTGGCCAGAGGACTGTGGATGACCTAGAGATTATCTATGAGGAGCTTCTTCATATTAAGCCTTATC
 CCATCTTTCTACCACAGTAAACGAGAGTTAGCAGGTGTTCTCATTTTTGAGTCTCACGCCAAAGGAGGG
 ACTGTGTTGTTAAACCAGGGGAAGAAGGTACCTCCTGGTACATTATTCTAAAAGGATCAGTGAATGTAG
 TCAATACGGCAAGGGTGTGGTCTGCACCTGCATGAAGGAGATGACTTCGGCAAGTTAGCACTAGTGAA
 TGATGCCCCACGAGCTGCCTCTATCGTCTTACGAGAAGATAACTGCCATTTCTTAAGAGTAGACAAGGAG
 GATTTCAACCGGATCCTAAGGGACGTGGAGGCGAATACAGTCAGACTTAAAGAACATGACCAAGATGTCT
 TGGTGTGGAGAAGTCCCAGCAGGGAACAGAGCTTCTAATCAAGGAACTCACAGCCTCAGCAAAAAGTA
 TACTGTGATGTCAGGAACACCTGAAAAATTTAGAGCATTCTAGAAACAATACGCCTTGAGGCAACT
 TTAATGAAGCAACAGATTCTGTTTTAAATGACTTTATATGATGCACTGTGTTTTATGCCAAATACCC
 AGCTTTGCCCGGCACTGGTGGCCACTACCAGCACAGCCTTACAAGGTACAGAACAGGAGAAAAATGGA
 TTATGCCCTCAACAATAAGAGGCGAGTCATCCGCCTGGTCTACAGTGGGCTGCCATGTATGGAGACCTC
 CTGCAAGAGGATGACGTGTCTATGGCCTTCTGGAGGAGTTTTATGTATCTGTATCAGATGATGCCCGGA
 TGATTGCTGCCCTCAAGGAGCAACTGCCAGAGTTGGAGAAGATTGTCAAGCAAATCTCAGAAGATGCAAA
 GGCACCACAAAAGAAGCACAAGTTCTTTTGCAACAGTTCAATACGGGCGATGAGAGAGCCAGAAGCGC
 CAGCCTATCCGCGGCTCTGATGAAGTTCTGTTAAGGTCTATTGCATGGACCACACTACACAACCATTC
 GGGTGCCAGTGGCCACTTCGGTGAAGGAAGTCATCAGTGCAGTTGCCGACAAGCTGGGCTCCGGGGAGGG
 CCTGATCATAGTCAAGATGAGTTCGGGAGGAGAAAAGGTGGTGTCAAACCTAATGATGTTTCAGTATTT
 ACGACGCTCACCATTAATGGACGCTGTTGCTTGCCCGGAGAGCAATTCGATTCACTGACTCCCTTAC
 CAGAACAGGAAGGCCAACTGTTGGAACAGTGGGAACTTTTGAACTGATGAGCTCCAAGATTTAGCATA
 CCAGATGACAATTTATGATTGGGAACTCTCAACTGCGTGCATGAGCTGGAGCTAATCTATCACACATTT
 GGAAGGCATAATTTAAAAAGACCACAGCAAACTTGGATTTGTTCTGAGGAGATTTAATGAAATTCAGT
 TTTGGTCTGCTCACTGAGATCTGCCTTTGTTCTCAGCTCAGCAAGCGTGTTCAGCTATTAATAAATTTAT
 TAAGATAGCAGCCACTGTAAGGAGTATAAAAACTGAATTCCTTTTTGCCATCGTCATGGGACTAAGT
 AACGTTGCTGTGAGCCGCTTGGCACTAACGTGGGAGAACTGCCAAGCAAGTTCAAGAAGTTCTATGCGG
 AGTTTGAAAGTTAATGGACCTTCAAGGAACACAGGGCCTACAGGCTGACAGTAGCTAAGCTGGAACC
 TCCTCTCATCCCCTTCATGCCTTTGCTCATTAAAGATATGACATTTACTCATGAGGGGAACAAGACGTTT
 ATTGACAATCTAGTAACTTTGAAAAAATGCGCATGATTGCAAAATACGGCCAGAACAGTGAGATACTACA
 GGAGCCAACCTTCAATCCTGATGCAGCTCAAGCTAATAAGAACCATCAGGATGTCCGGAGTTATGTACG
 GCAATTAATGTATTGACAACAGAGAATTTATCACAGATGTCACACAGATTAGAGCCTCGTCGACCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239661 representing NM_001282900
 Red=Cloning site Green=Tags(s)

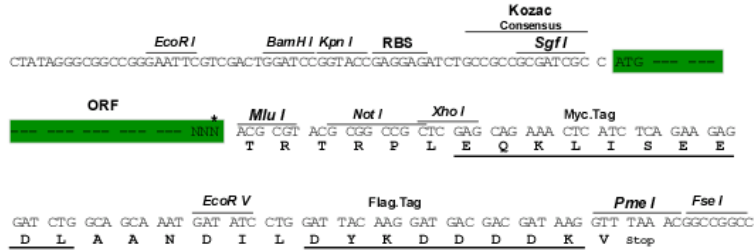
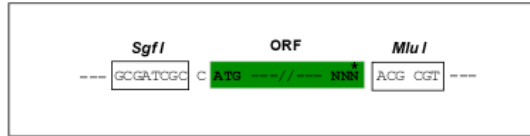
MAGLLAPPYGVMETGSNNDRIPDKENVPSEKILRAGKILRNAILSRAPHMIRDRKYHLKTYRQCCVGT
 ELVDWMMQQTPCVHSRTQAVGMWQVLLLEDGVLNHVDQEHFQDKYLFYRFLDDEHEDAPLPTEEEK
 ECDEELQDTMLLL SQMGPDAMHRMILRKPPGQRTVDDLEIIYEELLHIKALSHLSTTVKRELAG
 VLFESHAKGGTVL FNQGEEGTSWYIILKGSVNVVIYKGVVCTLHEGDDFGKLALVNDAPRAAS
 IVLREDNCHFLRV DKE DFNRIIRDVEANTVRLKEHDQDVLVLEKVPAGNRASNQNSQPQK
 YTVMSGTPEKILEHFLETIRLEATLNEATDSVLNDFIMMHCVFMPNTQLCPALVAHYHAQPS
 QGTEQEKMDYALNNKRRVIRLVLQWAAMYGDLLQEDDVSMAFLEEFYVSVDARMIAALKE
 QLPELEKIVKQISEDAKAPQKKHKVLLQQFNTGDERAQRQP IRGSDEVLFKVYCMDHTYTT
 IRVPVATSVKEVISAVADKLGSGEGLIIVKMSSGGEKVVLKPNVSVFTTLTINGRLFAC
 PREQFDSL TPLPEQEGPTVGTGTFELMSSKDLAYQMTIYDWELFNCVHELELIYHTFGR
 HNFKTTANLDLFLRRFNEIQFVVVTEICLCSQLSKRVQLKKFKIAAHCKEYKNLNSFFAIV
 MGLSNVAVSRLALTWEKLP SKFKFYAEFESLMDPSRNHRAYRLTVAKLEPLIPFMPLLIKDM
 TFTHEGNKTFIDNLVNF EKMRMIANTARTVRYRSQPFNPDAQAANKNHQDVRSYVRQLNVI
 DNQRTL SQMSHRLPPRRP

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

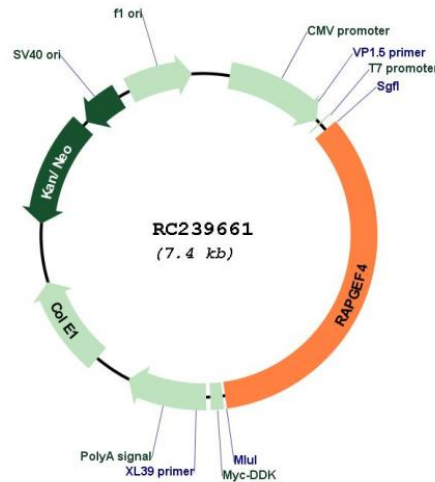
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001282900

ORF Size: 2520 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.

RefSeq: [NM_001282900.2](#)

RefSeq Size: 3937 bp

RefSeq ORF: 2523 bp

Locus ID: 11069

UniProt ID: [Q8WZA2](#)

Cytogenetics: 2q31.1

Protein Pathways: Leukocyte transendothelial migration

MW: 96.7 kDa

Gene Summary: Guanine nucleotide exchange factor (GEF) for RAP1A, RAP1B and RAP2A small GTPases that is activated by binding cAMP. Seems not to activate RAB3A. Involved in cAMP-dependent, PKA-independent exocytosis through interaction with RIMS2 (By similarity).[UniProtKB/Swiss-Prot Function]