

Product datasheet for **RC239570**

Epac2 (RAPGEF4) (NM_001282901) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epac2 (RAPGEF4) (NM_001282901) 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



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ORF Nucleotide
Sequence:

>RC239570 representing NM_001282901
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGATAAGAGATAGAAAATACCACCTAAAGACATACAGACAATGCTGTGTGGAACTGAACTGGTGGACT
GGATGATGCAGCAGACACCATGTGTTCACTCCCGACTCAAGCTGTTGGCATGTGGCAAGTCTGTAGTA
AGATGGTGTCTCAACCACGTGGACCAGGAGCACCATTCCAAGACAAATATTTATTCTATCGATTCTG
GATGATGAGCAGGAGGATGCCCTTTGCCTACTGAGGAGGAGAAGAAGGAGTGTGATGAGGAGCTCCAGG
ACACCATGCTGCTGTGCACAGATGGGCCCGACGCCACATGAGGATGATCCTTCGCAAACCCTGG
CCAGAGGACTGTGGATGACCTAGAGATTATCTATGAGGAGCTTCTCATATTAAGCCTTATCCCATCTT
TCTACCACAGTGAACGAGAGTTAGCAGGTGTTCTCATTTTTGAGTCTCACGCCAAAGGAGGACTGTGT
TGTTTAAACAGGGGAAGAAGGTACCTCCTGGTACATTATCTAAAAGGATCAGTGAATGTAGTCATTTA
CGCAAGGGTGTGGTCTGCACCCTGCATGAAGGAGATGACTTCGGCAAGTTAGCACTAGTGAATGATGCC
CCACGAGCTGCCTCTATCGTCTTACGAGAAGATAACTGCCATTTCTTAAGAGTAGACAAGGAGATTCA
ACCGGATCCTAAGGGACGTGGAGGCGAATACAGTCAGACTTAAAGAACATGACCAAGATGTCTTGGTGTCT
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ATGTCAGGAACACCTGAAAAATTTTAGAGCATTTCTAGAAACAATACGCCCTTGAGGCAACTTTAAATG
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CTCAACAATAAGAGGCGAGTCACTCCGCTGGTTCTACAGTGGGCTGCCATGTATGGAGACCTCCTGCAAG
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CAAAAGAAGCACAGGTTCTTTTGAACAGTTCATACGGCGATGAGAGAGCCAGAAGCGCCAGCCTA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239570 representing NM_001282901
 Red=Cloning site Green=Tags(s)

MIRDRKYHLKTYRQCCVGTTELVDWMMQQTPCVHSRTQAVGMWQVLLLEDGVLNHVDQEHFQDKYLFYRFL
 DDEHEDAPLPTEEEKKCEDEELQDTMLLLSQMGPDAMRMILRKPPGQRTVDDLEIIEYELLHIKALSHL
 STTVKRELAVLIFESHAKGGTVLFNQGEETSUYIILKGSVNVVYIGKGVVCTLHEGDDFGKLALVNDAPRA
 ASIVLREDNCHFLRVDKEDFNRIIRDVEANTVRLKEHDQDVLVLEKVPAGNRASNQGNSQPQQKYTV
 MSGTPEKILEHFLETIRLEATLNEATDVLNDFIMMHCVFMPNTQLCPALVAHYHAQPSQGTQEKMMDYA
 LNNKRRVIRLVLQWAAMYGDLLQEDDVSMALFEEFYVSVSDDARMI AALKEQLPELEKIVKQISEDAKAP
 QKKHKVLLQQFNTGDERAQRQPIRGSEVLFKVVYCMDHTYTTIRVPVATSVKEVISAADKLGSGEGLI
 IVKMSSGGEKVVLPNDVSVFTTLINGRLFACPREQFDSLTPLEQEGPTVGTGTGTFELMSSKDLAYQM
 TIYDWELFNCVHELELIYHTFGRHNFKKTTANLDLFLRRFNEIQFVWVTEICLCSQLSKRVQLLKKFIKI
 AAHCKEYKNLNSFFAIVMGLSNVAVSRLALTWEKLPKFKKFFAEEFSLMPSRNRHAYRLTVAKLEPPL
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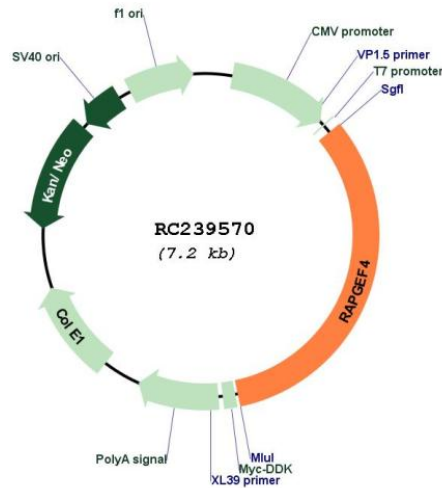
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfi-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001282901

ORF Size: 2373 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_001282901.2](#)

RefSeq Size: 3725 bp

RefSeq ORF: 2376 bp

Locus ID: 11069

UniProt ID: [Q8WZA2](#)

Cytogenetics: 2q31.1

Protein Pathways: Leukocyte transendothelial migration

MW: 91.4 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]