

Product datasheet for **RC239694**

Epac2 (RAPGEF4) (NM_001282899) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epac2 (RAPGEF4) (NM_001282899) 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:

>RC239694 representing NM_001282899
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGGACTTCTGGCTCCTCCTTATGGTGTATGGAACGGGCTCTACAATGACAGGATTCCTGACA
 AGGAGAACACACCTCTCATTGAACCTCAGTTCCTCTTCGTCTGCTAACACCATTACCAAGTCCCTTC
 AGAGAAGATCCTCAGAGCTGGAATAATTTACGAAATGCCATTCTCTCGAGCACCTCACATGATAAGA
 GATAGAAAATACCACCTAAAGACATACAGACAATGCTGTGTGGAACTGAACTGGTGGACTGGATGATGC
 AGCAGACACCATGTGTTCACTCCCGACTCAAGCTGTTGGCATGTGGCAAGTCTGTTAGAAGATGGTGT
 TCTCAACCACGTGGACCAGGAGCACCATTTCGAAGACAAATATTTATTCTATCGATTTCTGGATGATGAG
 CACGAGGATGCCCTTTGCCTACTGAGGAGGAGAAGAAGGAGTGTGATGAGGAGCTCCAGGACACCATGC
 TGCTGCTGTACAGATGGGCCCGACGCCACATGAGGATGATCCTTCGAAACCACCTGGCCAGAGGAC
 TGTGGATGACCTAGAGATTATCTATGAGGAGCTTCTTCATATTAAGCCTTATCCCATCTTTCTACCACA
 GTGAAACGAGAGTTAGCAGGTGTTCTCATTGAGTCTCACGCCAAAGGAGGGACTGTGTTGTTAAACC
 AGGGGGAAGAAGGTACCTCCTGGTACATTATTCTAAAAGGATCAGTGAATGTAGTCATTTACGGCAAGGG
 TGTGGTCTGCACCTGCATGAAGGAGATGACTTCGGCAAGTTAGCACTAGTGAATGATGCCCCACGAGCT
 GCCTCTATCGTCTTACGAGAAGATAACTGCCATTTCTTAAGAGTAGACAAGGAGGATTTCAACCGGATCC
 TAAGGGACGTGGAGGCGAATACAGTCAGACTTAAAGAACATGACCAAGATGTCTTGGTGTGGAGAAGGT
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 AAGAGGCGAGTACCGCCTGGTCTACAGTGGGCTGCCATGTATGGAGACCTCTGCAAGAGGATGACG
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 TTCGGTGAAGGAAGTATCAGTGCAGTTGCCGACAAGCTGGGCTCCGGGGAGGGCCTGATCATAGTCAAG
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 AACTGTTGGAACAGTGGGAACCTTTGAACTGATGAGCTCAAAGATTTAGCATACCAGATGACAATTTAT
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 GCTTGGCACTAACGTGGGAGAACTGCCAAGCAAGTTCAAGAAGTCTATGCGGAGTTTGAAGTTTAAAT
 GGACCTTCAAGGAACACAGGGCCTACAGGCTGACAGTAGCTAAGCTGGAACCTCCTCTCATCCCCTTC
 ATGCCTTTGCTCATTAAAGATATGACATTTACTCATGAGGGGAACAAGAGGTTTATTGACAATCTAGTAA
 ACTTTGAAAAATGCGCATGATTGCAAATACGGCCAGAACAGTGAGATACTACAGGAGCCAAACCTTCAA
 TCCTGATGCGACTCAAGCTAATAAGAACCATCAGGATGTCGGAGTTATGTACGGCAATTAATGTGATT
 GACAACCAGAGAATTTATCACAGATGTCACACAGATTAGAGCCTCGTCGACCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239694 representing NM_001282899
Red=Cloning site Green=Tags(s)

MAGLLAPPYGVMETGSNNDRIPDKENTPLIEPHVPLRPANTITKVPSEKILRAGKILRNAILSRAPHMIR
DRKYHLKTYRQCCVGTTELVDWMMQQTPCVHSRTQAVGMWQVLLLEDGVLNHVDQEHHFQDKYLFYRFLDDE
HEDAPLPTEEEKKECDEELQDTMLLLSQMGPDAMRMILRKPPGQRTVDDLEIIYEELLHIKALSHLSTT
VKRELAGVLIFESHAKGGTVLFNQGEEGTSWYIILKGSVNVVIYKGVVCTLHEGDDFGKLALVNDAPRA
ASIVLREDNCHFLRVKEDFNRIIRDVEANTVRLKEHDQDVLVLEKVPAGNRASNQGSQPQQKYTVMSG
TPEKILEHFLETIRLEATLNEATDSVLNDFIMMHCVFMPNTQLCPALVAHYHAQPSQGTEQEKMDYALNN
KRRVIRLVLQWAAMYGDLLQEDDVSMAFLEEFYVSVDARMIAALKEQLPELEKIVKQISEDAKAPQKK
HKVLLQQFNTGDERAQRQPIRGSDVLFKVVYCMDHTYTTIRVPVATSVKEVISAVADKLGSGEGLIIVK
MSSGGEKVVLKPNVSVFDTLTINGRLFACPREQFDSL TPLPEQEGPTVGTGTFELMSSKDLAYQMTIY
DWELFNCVHELELIYHTFGRHNFKKTANLDFLRRFNEIQFWVTEICLCSQLSKRVQLLKKFIKIAAH
CKEYKNLNSFFAIVMGLSNVAVSRLALTWEKLPKFKKFYAEFESLMDPSRNHRAYRLTVAKLEPPLIPF
MPLL IKDMTF THEGNKTF IDNL VNF EKMRMIANTARTVRYRYSQPFNPDAQAANKNHQDVR SYVRQLNVI
DNQRTLSQMSHRLEPRRP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

ACCN:	NM_001282899
ORF Size:	2574 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_001282899.2
RefSeq Size:	3991 bp
RefSeq ORF:	2577 bp
Locus ID:	11069
UniProt ID:	Q8WZA2
Cytogenetics:	2q31.1
Protein Pathways:	Leukocyte transendothelial migration
MW:	98.7 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]