

Product datasheet for **RG239661**

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:	TurboGFP
Symbol:	Epac2
Synonyms:	CAMP-GEFII; CGEF2; EPAC; EPAC 2; EPAC2; Nbla00496
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG239661 representing NM_001282900.
 Blue=ORF Red=Cloning site Green=Tag(s)

```

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCACGATCGCC
ATGGCAGGACTTCTGGCTCCTCCTTATGGTGTATGGAAACGGGCTCTAACAAATGACAGGATTCCTGAC
AAGGAGAACGTCCTTCAGAGAAGATCCTCAGAGCTGGAAAAATTTACGAAATGCCATTCTCTCGA
GCACCTCACATGATAAGAGATAGAAAATACCACCTAAAGACATACAGACAATGCTGTGGGAACTGAA
CTGGTGGACTGGATGATGCAGCAGACACCATGTGTTCACTCCCGACTCAAGCTGTTGGCATGTGGCAA
GTCCTGTTAGAAGATGGTGTCTCAACCACGTGGACCAGGAGCACCATTCCAAGACAAATATTTATTC
TATCGATTTCTGGATGATGAGCACGAGGATGCCCTTTGCCTACTGAGGAGGAGAAGAAGGAGTGTGAT
GAGGAGCTCCAGGACACCATGCTGCTGTGTACAGATGGGCCCGACGCCACATGAGGATGATCCTT
CGCAAACACCTGGCCAGAGGACTGTGGATGACCTAGAGATTATCTATGAGGAGCTTCTCATATTTAAA
GCCTTATCCCATCTTTCTACCACAGTGAACGAGAGTTAGCAGGTGTTCTCATTTTTGAGTCTCACGCC
AAAGGAGGACTGTGTTGTTAAACAGGGGAAGAAGGTACCTCCTGGTACATTATCTAAAAGGATCA
GTGAATGTAGTCAATTTACGGCAAGGGTGTGGTCTGCACCTGCATGAAGGAGATGACTTCGGCAAGTTA
GCACTAGTGAATGATGCCCCACGAGCTGCCTCTATCGTCTTACGAGAAGATAACTGCCATTTCTTAAGA
GTAGACAAGGAGGATTTCAACCGGATCCTAAGGGACGTGGAGGCGAATACAGTCAGACTTAAAGAACAT
GACCAAGATGTCTTGGTGTGGAGAAGTCCCAGCAGGGAACAGAGCTTCTAATCAAGGAAACTCACAG
CCTCAGCAAAAGTATACTGTGATGTGAGAACACCTGAAAAATTTAGAGCATTTTCTAGAAAACAATA
CGCCTTGAGGCAACTTTAAATGAAGCAACAGATTCTGTTTTAAATGACTTTATTTATGATGCACTGTGTT
TTTATGCCAAATACCCAGCTTTGCCCGGCACTGGTGGCCCACTACCACGCACAGCCTTACAAGGTACA
GAACAGGAGAAAAATGGATTATGCCCTCAACAATAAGAGGCGAGTCATCCGCTGTTCTACAGTGGGCT
GCCATGTATGGAGACCTCCTGCAAGAGGATGACGTGTCTATGGCCTTCTGGAGGAGTTTTATGTATCT
GTATCAGATGATGCCCGGATGATTGCTGCCCTCAAGGAGCAACTGCCAGAGTTGGAGAAGATTGTCAAG
CAAATCTCAGAAGATGCAAAGGCACCACAAAAGAAGCACAAGGTTCTTTTGAACAGTTCAATACGGGC
GATGAGAGAGCCAGAAGCGCCAGCCTATCCGCGGCTCTGATGAAGTTCTGTTTAAAGTCTATTGCATG
GACCACACCTACACAACCATTCGGGTGCCAGTGGCCACTTCGGTGAAGGAAGTATCAGTGCAGTTGCC
GACAAGCTGGGCTCCGGGAGGGCCTGATCATAGTCAAGATGAGTTCGGGAGGAGAAAAGGTGGTGTCTC
AAACCTAATGATGTTTCAGTATTTACGACGCTCACCATAATGGACGCCTGTTTGTCTGCCCGGAGAG
CAATTCGATTCAGTACTCCCTTACCAGAACAGGAAGGCCCAACTGTTGGAACAGTGGGAACTTTTGAA
CTGATGAGCTCCAAAGATTTAGCATACCAGATGACAATTTATGATTGGGAACTCTTCAACTGCGTGCAT
GAGCTGGAGCTAATCTATCACACATTTGGAAGGCATAATTTTAAAAAGACCACAGCAAACCTTGGATTTG
TTCTGAGGAGATTTAATGAAATTCAGTTTTGGGTCGTCAGTCTGAGATCTGCCCTTGTCTCAGCTCAGC
AAGCGTGTTCAGCTATTAATAAATTTATTAAGATAGCAGCCACTGTAAGGAGTATAAAAACTGAAT
TCCTTTTTTCCATCGTCATGGGACTAAGTAACGTTGCTGTGAGCCGCTTGGCACTAACGTGGGAGAAA
CTGCCAAGCAAGTTCAAGAAGTTCTATGCGGAGTTTGAAGTTTAAATGGACCCTCAAGGAACCACAGG
GCCTACAGGCTGACAGTAGCTAAGCTGGAACCTCCTCTCATCCCCTTTCATGCCTTTGCTCATTAAAGAT
ATGACATTTACTCATGAGGGGAACAAGACGTTTCATTGACAATCTAGTAACTTTGAAAAAATGCGCATG
ATTGCAAATACGGCCAGAACAGTGAGATACTACAGGAGCCAACCTTCAATCCTGATGCAGCTCAAGCT
AATAAGAACCATCAGGATGTCCGGAGTTATGTACGGCAATTAATGTGATTGACAACCAGAGAACTTTA
TCACAGATGTCACACAGATTAGAGCCTCGTCGACCA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
  
```

Protein Sequence: >Peptide sequence encoded by RG239661
 Blue=ORF Red=Cloning site Green=Tag(s)

MAGLLAPPYGVMETGSNNDRIPDKENVPSEKILRAGKILRNAILSRAPHMIRDRKYHLKTYRQCCVGTE
 LVDWMMQQTPCVHSRTQAVGMWQVLLLEDGVLNHVDQEHFQDKYLFYRFLDDEHEDAPLPTEEEKKCD
 EELQDTMLLLSQMGPDAMRMILRKPPGQRTVDDLEIIYEELLHIKALSHLSTTVKRELAVLIFESHA
 KGGTVL FNQGEEGTSWYIILKGSVNVVIYKGVVCTLHEGDDFGKLALVNDAPRAASIVLREDNCHFLLR
 VDKEDFNRI LR DVEANTVRLKEHDQDVLVLEKVPAGNRASNQGNSQPQKYTVMSGTPEKILEHFLETI
 RLEATLNEATDSVLNDFIMMHCVFMPNTQLCPALVAHYHAQPSQGTEQEKMDYALNNKRRVIRLVLQWA
 AMYGDLLQEDDVSMAFLEEFYVSVSDDARMIAALKEQLPELEKIVKQISEDAPKQKHKVLLQQFNTG
 DERAQKRQPIRGSDVLFKVVYCMDHTYTTIRVPVATSVKEVISAVADKLGSGEGLIIVKMSSGGEKVVL
 KPNDVSVFTTLINGRLFACPREQFDSL TPLPEQEGPTVGTGTFELMSSKDLAYQMTIYDWELFNCVH
 ELELIYHTFGRHNFKKTANLDLFLRRFNEIQFWVTEICLCSQLSKRVQLLKKFIKIAAHCKEYKLN
 SFFAIVMGLSNVAVSRLALTWEKLPKFKKFAEFESLMDPSRNRHAYRLTVAKLEPPLIPFMPLLIKD
 MTF THEGNKTFIDNLVNF EKMRMIANTARTVRYRSPFPNDAAQANKNHQDVRSYVRQLNVIDNQRTL
 SQMSHRLPRRP
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEP
 SVIFTDKIIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



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.

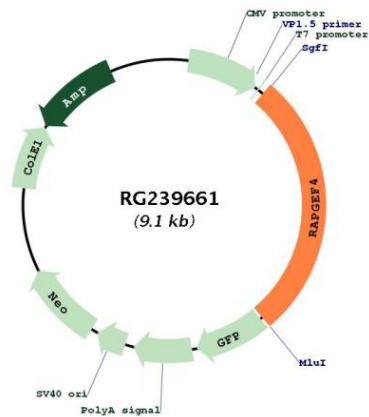
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

RefSeq: [NM_001282900.2](#)

RefSeq Size: 3937 bp

RefSeq ORF:	2523 bp
Locus ID:	11069
UniProt ID:	<u>Q8WZA2</u>
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]

Product images:



Circular map for RG239661