

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: | RAPGEF4 |
| 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
AAGGAGAACGTCCCTTCAGAGAAGATCCTCAGAGCTGGAAAAATTTACGAAATGCCATTCTCTCGA
GCACCTCACATGATAAGAGATAGAAAATACCACCTAAAGACATACAGACAATGCTGTGGGAACTGAA
CTGGTGGACTGGATGATGCAGCAGACACCATGTGTTCACTCCCGACTCAAGCTGTTGGCATGTGGCAA
GTCCTGTTAGAAGATGGTGTCTCAACCACGTGGACCAGGAGCACCATTCCAAGACAAATATTTATTC
TATCGATTTCTGGATGATGAGCACGAGGATGCCCTTTGCCTACTGAGGAGGAGAAGAAGGAGTGTGAT
GAGGAGCTCCAGGACACCATGCTGCTGTGTACAGATGGGCCCGACGCCACATGAGGATGATCCTT
CGCAAACCACCTGGCCAGAGGACTGTGGATGACCTAGAGATTATCTATGAGGAGCTTCTTCATATTTAA
GCCTTATCCCATCTTTCTACCACAGTGAACGAGAGTTAGCAGGTGTTCTCATTTTTGAGTCTCACGCC
AAAGGAGGACTGTGTTGTTAAACAGGGGAAGAAGGTACCTCCTGGTACATTATCTAAAAGGATCA
GTGAATGTAGTCAATTTACGGCAAGGGTGTGGTCTGCACCTGCATGAAGGAGATGACTTCGGCAAGTTA
GCACTAGTGAATGATGCCCCACGAGCTGCCTCTATCGTCTTACGAGAAGATAACTGCCATTTCTTAAGA
GTAGACAAGGAGGATTTCAACCGGATCCTAAGGGACGTGGAGGCGAATACAGTCAGACTTAAAGAACAT
GACCAAGATGTCTGGTGTGGAGAAGTCCCAGCAGGGAACAGAGCTTCTAATCAAGGAAACTCACAG
CCTCAGCAAAAGTATACTGTGATGTGAGAACACCTGAAAAATTTAGAGCATTTTCTAGAAAACAATA
CGCCTTGAGGCAACTTTAAATGAAGCAACAGATTCTGTTTTAAATGACTTTATTTATGATGCACTGTGT
TTTATGCCAAATACCCAGCTTTGCCCGGCACTGGTGGCCCACTACCACGCACAGCCTTACAAGGTACA
GAACAGGAGAAAAATGGATTATGCCCTCAACAATAAGAGGCGAGTCATCCGCTGGTTCACAGTGGGCT
GCCATGTATGGAGACCTCCTGCAAGAGGATGACGTGTCTATGGCCTTCTGGAGGAGTTTTATGTATCT
GTATCAGATGATGCCCGGATGATTGCTGCCCTCAAGGAGCAACTGCCAGAGTTGGAGAAGATTGTCAAG
CAAATCTCAGAAGATGCAAAGGCACCACAAAAGAAGCACAAGGTTCTTTTGAACAGTTCAATACGGGC
GATGAGAGAGCCAGAAGCGCCAGCCTATCCGCGGCTCTGATGAAGTTCTGTTTAAAGGCTATTGCATG
GACCACACCTACACAACCATTCGGGTGCCAGTGGCCACTTCGGTGAAGGAAGTCATCAGTGCAGTTGCC
GACAAGCTGGGCTCCGGGAGGGCCTGATCATAGTCAAGATGAGTTCGGGAGGAGAAAAGGTGGTGCTC
AAACCTAATGATGTTTCAGTATTTACGACGCTCACCATAATGGACGCCTGTTTGTCTGCCCGGAGAG
CAATTCGATTCAGTACTCCCTTACCAGAACAGGAAGGCCCAACTGTTGGAACAGTGGGAACTTTTGAA
CTGATGAGCTCCAAAGATTTAGCATACCAGATGACAATTTATGATTGGGAACTCTTCAACTGCGTGCAT
GAGCTGGAGCTAATCTATCACACATTTGGAAGGCATAATTTTAAAAAGACCACAGCAAACCTGGATTG
TTCTGAGGAGATTTAATGAAATTCAGTTTTGGGTCGTCAGTCTGAGATCTGCCCTTTGTTCTCAGCTCAGC
AAGCGTGTTCAGCTATTAATAAATTTATTAAGATAGCAGCCACTGTAAGGAGTATAAAAACTGAAT
TCCTTTTTGCCATCGTCATGGGACTAAGTAACGTTGCTGTGAGCCGCTTGGCACTAACGTGGGAGAAA
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)

MAGLLAPPYGVMETGSNNDRIPDKENVPSEKILRAGKILRNAILSRAPHMIRDRKYHLKTYRQCCVGT
 LVDWMMQQTTPCVHSRTQAVGMWQVLLLEDGVLNHVDQEHFQDKYLFYRFLDDEHEDAPLPTTEEEKCED
 EELQDTMLLLSQMGPDAMRMILRKPPGQRTVDDLEIIYEELLHIKALSHLSTTVKRELAGVLIFESHA
 KGGTVLFNQGEEGTSWYIILKGSVNVVIYKGVVCTLHEGDDFGKLALVNDAPRAASIVLREDNCHF
 LRVKEDFNRIIRDVEANTVRLKEHDQDVLVLEKVPAGNRASNQNSQPQKQYTVMSGTPEKILEHFLE
 TI RLEATLNEATDSVLNDFIMMHCVFMPNTQLCPALVAHYHAQPSQGTQEKMDYALNNKRRVIRLVLQWA
 AMYGDLLQEDDVSMAFLEEFYVSVSDDARMIAALKEQLPELEKIVKQISEDAPKQKHKVLLQQFNTG
 DERAQKRQPIRGSDEVLFKVVYCMDHTYTTIRVPVATSVKEVISAVADKLGSGEGLIIVKMSSGGEKVV
 LKPNVSVFVFTLLINGRLFACPREQFDSL TPLPEQEGPTVGTGTFELMSSKDLAYQMTIYDWELFNCVH
 ELELIYHTFGRHNFKKTANLDLFLRRFNEIQFWVTEICLCSQLSKRVQLLKKFIKIAAHCKEYKLN
 SFFAIVMGLSNVAVSRLALTWEKLPKFKKFAEFESLMDPSRNRHAYRLTVAKLEPPLIPFMPLLIKD
 MTFTHEGNKTFIDNLVNFEEKMRMIANTARTVRYRYSQPFNPDAQAANKNHQDVRSYVRQLNVIDNQRTL
 SQMSHRLPRRP
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPE
 DSVIFTDKIIIRSNAIVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: Sgfl-Mlul

| | |
|--------------------------|--|
| 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: | 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] |