

Product datasheet for **RG217088**

Epac2 (RAPGEF4) (NM_001100397) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epac2 (RAPGEF4) (NM_001100397) 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)



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ORF Nucleotide Sequence:

>RG217088 representing NM_001100397
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCTACAAGAAATATCGACAGTATATGGCAGGACTTCTGGCTCCTTATGGTGTATGGAACGG
 GCTCTAACAAATGACAGGATTCTGACAAGGAGAACACACCTCTCATTGAACCTCAGTTCCTCTTGTCC
 TGCTAACACCATTACCAAGGTCCCTTCAGAGAAGATCCTCAGAGCTGGAAAAATTTACGAAATGCCATT
 CTCTCTCGAGCACCTCACATGATAAGAGATAGAAAATACCACCTAAAGACATACAGACAATGCTGTGTGG
 GAACTGAACTGGTGGACTGGATGATGCAGCAGACACCATGTGTTCACTCCCGGACTCAAGCTGTTGGCAT
 GTGGCAAGTCTGTTAGAAGATGGTGTCTCAACCACGTGGACCAGGAGCACCATTTCCAAGACAAATAT
 TTATTCTATCGATTTCTGGATGATGAGCAGGAGTGGCCCTTTGCCTACTGAGGAGGAGAAGAAGGAGT
 GTGATGAGGAGCTCCAGGACACCATGCTGCTGCTGCACAGATGGGCCCCGACCCACATGAGGATGAT
 CCTTCGCAAACCCTGGCCAGAGGACTGTGGATGACCTAGAGATTATCTATGAGGAGCTTCTTCATATT
 AAAGCCTTATCCCATCTTTCTACCACAGTGAAACGAGAGTTAGCAGGTGTTCTCATTTTTGAGTCTCAGG
 CCAAAGGAGGGACTGTGTTGTTAAACCAGGGGGAAGAAGGTACCTCCTGGTACATTATTCTAAAAGGATC
 AGTGAATGTAGTCATTTACGGCAAGGGTGTGGTCTGCACCTGCATGAAGGAGATGACTTCGGCAAGTTA
 GCACTAGTGAATGATGCCCCACGAGCTGCCTCTATCGTCTTACGAGAAGATAACTGCCATTTCTTAAGAG
 TAGACAAGGAGGATTTCAACCGGATCCTAAGGGACGTGGAGGCGAATACAGTCAGACTTAAAGAACATGA
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 CAGCAAAAGTATACTGTGATGTCAGGAACACCTGAAAAATTTTAGAGCATTTTCTAGAAACAATACGCC
 TTGAGGCAACTTTAAATGAAGCAACAGATTCTGTTTTAAATGACTTTATTATGATGCATGTGTTTTTAT
 GCCAAATACCCAGCTTTGCCCGGCACTGGTGGCCCACTACCACGCACAGCCTTCAAAAGGTACAGAACAG
 GAGAAAATGGATTATGCCCTCAACAATAAGAGGCGAGTCATCCGCCTGGTTCTACAGTGGGCTGCCATGT
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 CCCAGAAGCGCCAGCCTATCCGCGGCTCTGATGAAGTTCTGTTAAAGTCTATTGCATGGACCACACCTA
 CACAACCATTCCGGTGCCAGTGGCCACTCCGGTGAAGGAAGTCAATCAGTGCAGTTGCCGACAAGCTGGGC
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 TTTCAAGTATTTACGACGCTCACCATTAATGGACGCTGTTTGCTTCCCGCGAGAGCAATTCGATCACT
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 AAGCTGGAACCTCCTCTCATCCCCTTTCATGCCTTTGCTCATTAAAGATATGACATTTACTCATGAGGGGA
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 GAGATACTACAGGAGCCAACCCTTCAATCCTGATGCAGCTCAAGCTAATAAGAACCATCAGGATGTCGG
 AGTTATGTACGGCAATTAATGTGATTGACAACCAAGAGAACTTTATCACAGATGTCACACAGATTAGAGC
 CTCGTCGACCA

ACCGGTACGCGGCCGCTCGAG - GFP Tag - **GTTTAA**

Protein Sequence: >RG217088 representing NM_001100397
Red=Cloning site Green=Tags(s)

MLYKKYRQYMAGLLAPPYGVMETGSNNDRIPDKENTPLIEPHVPLRPANTITKVPSEKILRAGKILRNAI
 LSRAPHMIRDRKYHLKTYRQCCVGTTELVDWMMQQTTPCVHSRTQAVGMWQVLEEDGVLNHVDQEHHFQDKY
 LFYRFLDDEHEDAPLPTEEEEKCEDEELQDTMLLLSQMGPDAMHRMILRKPPGQRTVDDLEIIYEELLHI
 KALSHLSTTVKRELAVGLIFESHAKGGTVLFNQEGEETSUYIILKGSVNVVIYKGVVCTLHEGDDFGKL
 ALVNDAPRAASIVLREDNCHFLRVDKEDFNRIIRDVEANTVRLKEHDQDVLVLEKVPAGNRASNQNSQP
 QQKYTVMSGTPEKILEHFLEITIRLEATLNEATDSVLNDFIMMHCVFMPNTQLCPALVAHYHAQPSQGTEQ
 EKMDYALNNKRRVIRLVLQWAAMYGDLLQEDDVSMAFLEEFYVSVDARMIAALKEQLPELEKIVKQIS
 EDAKAPQKKHKVLLQQFNTGDERAQKRQPIRGSDEVLFKYYCMDHTYTTIRVPVATSVKEVISAVADKLG
 SGEGLIIVKMSSGGKVVLPNDVSVFTTLTINGRLFACPREQFDSLTPLEQEGPTVGTGTGFELMSSK
 DLAYQMTIYDWELFNCVHELELYHTFGRHNFKTTANLDFLRRFNEIQFVVTEICLCSQLSKRVQLL
 KKFIKIAAHCKEYKNLNSFFAIVMGLSNVAVSRLALTWEKLPSEKFKFYAEFESLMDPSRNHRAYRLTVA
 KLEPPLIPFMPLLIKDMTFTEGNKTFIDNLVNF EKMRMIANTARTVRYRSQPFNPDAQAANKNHQDVR
 SYVRQLNVIDNQRTLQSMHRLEPRRP

TRTRPLE - GFP Tag - V

Restriction Sites:

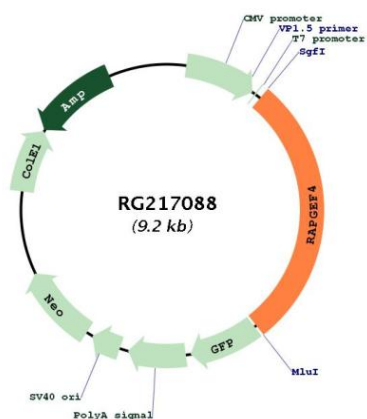
SgfI-MluI

Cloning Scheme:



ACCN:	NM_001100397
ORF Size:	2601 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_001100397.2
RefSeq Size:	4120 bp
RefSeq ORF:	2604 bp
Locus ID:	11069
UniProt ID:	Q8WZA2
Cytogenetics:	2q31.1
Protein Pathways:	Leukocyte transendothelial migration
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 RG217088