

Product datasheet for **SC323918**

Epac1 (RAPGEF3) (NM_006105) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Epac1 (RAPGEF3) (NM_006105) Human Untagged Clone
Tag:	Tag Free
Symbol:	Epac1
Synonyms:	bcm910; CAMP-GEFI; EPAC; EPAC1; HSU79275
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_006105.3
 CTGCTGCCCTGGCAGCCAGTCCAGCTAGGCACTGGCCAGTTCACCTGTACCTGGACTTAC
 CCACTGGCACCTTCCGGATCCCCTTATCAAAGCTGATGGGGTGCCTGGGGACCCCCAG
 CCTTTTGTAGAGCCTGCACGGCTGTGCGAGCTTGAAAAGAAACATGAAGGTGGGCTGGC
 CAGGTGAGAGCTGCTGGCAGGTGGCCCTGCCTGTGGAGGATAGCCAGCTCTGGGAGCAC
 CGCGGGTGGGAGCCCTCCCTGACGTGGTCCGGAGGGGACACTACTCAACATGGTGTGA
 GAAGGATGCACCGGCCCGAAGCTGCTCCTACCAGCTGCTGCTGGAGCACCAGCGTCCGA
 GCTGCATCCAGGGGCTGCGCTGGACACCACTACCAACAGCGAGGAGTCCCTGGATTCA
 GCGAGAGCCTGGAGCAGGCTCCACAGAGCGGGTGTGCTCAGGGCTGGGAGGCAGCTGCATC
 GGCATCTGCTGGCCACCTGCCAAACCTCATCCGAGACCGGAAGTACCACCTTAGGCTCT
 ATCGGCAGTGTCTCTGGCCGGGAGCTGGTGGATGGGATCTTGGCCCTGGGACTTGGGG
 TCCATTCCCGGAGCCAAGTTGTGGGAATCTGCCAGGTGCTGCTGGATGAAGGTGCCCTCT
 GCCATGTGAAACACGACTGGGCCTTCCAGGACCGAGATGCCAATTCTACCGTTCCCCG
 GGCCCCGAGCCCGAGCCGTGGGAACTCATGAGATGGAGGAGGAGTTGGCCGAAGCTGTGG
 CCCTGCTCTCCAGCGGGGGCTGACGCCCTGCTCACTGTGGCACTTCGAAAGCCCCAG
 GTCAGCGCAGGATGAAGAGCTGGACCTCATCTTTGAGGAGCTGCTGCACATCAAGGCTG
 TGGCCACCTCTCAACTCGGTGAAGCGAGAATTAGCGGCTGTTCTGCTCTTTGAACCAC
 ACAGCAAGGCAGGACCGTGTGTTTCAGCCAGGGGACAAGGGCACTTCGTGGTACATTA
 TCTGGAAGGATCTGTCAACGTGGTGACCCATGGCAAGGGGCTGGTGACCACCTGCATG
 AGGGAGATGATTTTGGACAGCTGGCTCTGGTGAATGATGCACCCGGGCAGCCACCATCA
 TCCTGCGAGAAGACAACCTGTCATTTCTGCGTGTGGACAAGCAGGACTTCAACCGTATCA
 TCAAGGATGTGGAGGCAAAGACCATGCGGCTGGAAGAATGGCAAAGTGGTGTGGTGC
 TGGAGAGAGCCTCTCAGGGCGCCGCCCTTCCCGACCCCAACCCAGGCAGGAACCGGT
 ATACAGTGTGCTGGCACCCAGAGAAGATCCTAGAGCTTCTGTTGGAGGCATGGGAC
 CAGATTCCAGTGTGCTCATGACCAACAGAGACATTCCTCAGCGACTTCTCCTGACCCACA
 GGGTCTTCATGCCAGCGCCCAACTCTGCGCTGCCCTTCTGCACCACTTCCATGTGGAGC
 CTGCGGGTGGCAGCGAGCAGGAGCGCAGCACCTACGTCTGCAACAAGAGGCAGCAGATCT



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TGCGGCTGGTCAGCCAGTGGGTGGCCCTGTATGGCTCCATGCTCCACACTGACCCTGTGG
CCACCAGCTTCCCTCCAGAACTCTCAGACCTGGTGGGCAGGGACACCCGACTCAGCAACC
TGCTGAGGGAGCAGTGGCCAGAGAGGCGGCGATGCCACAGGTTGGAGAATGGCTGTGGGA
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CCCTTCTGGCAGCAGCTGTGCCATCCAAGTTGGGGATAAAGTCCCCTATGACATCTGCC
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TGGCAGCGTTGGCCAGGAGGATGGCTGGACCAAGGGGAGGTGCTGGTGAAGGTCAATT
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TCAATGAGCGTCTCTTTGTTGTCAACCCACAGGAAGTGCATGAGCTGATCCCACACCCTG
ACCAGCTGGGGCCACTGTGGGCTCTGCTGAGGGGCTGGACCTGGTGAAGTCCAAGGACC
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AGCTCTCCCTCTGTATCCCTTTCATGCCCTTCTTCTCAAAGACATGACCTTCATTC
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CCAGAGCCGCGCGGATGCTGCACCCTGCCAAGCCACAACCTGTGCCTCTCTCACCAC
TCAGAAGCCGAGTTTCCACCTCCACGAGGACAGCCAGGTGGCGAGGATTTCCACATGCT
CGGAGCAGTCCCTGAGCACCCGGAGTCCAGCCAGCACCTGGGCTTATGTCCAGCAGCTGA
AGGTCATTGACAACCAGCGGGAAGTCTCCCGCCTCTCCCGAGAGCTGGAGCCATGAGGAG
GGGCTGGGACTGGAGCTGGAGCAGGCACTTGACGCCGGGAAAGCCAGGGTGTGCCGGCC
AAGATACTCACAGGCTGGCCACAGCTGGCAAGGCTCTCCGTGGAGTGGACTCGAGTCCC
TGGAGCAGGCAGTGTGGAGGCAGCCATCCCTGTGATGACTGGCAGCTAAGGAGGACCTC
GGAGTGGACCCGAGCCAGGAATAACGAATGACCCAAGGCCAAGGAAGGGAGGACAGAGAG
GCCCCAGGAGTGGGTGGAGAGTGGAGTGTGCTGGGACGTTGTGTGCAATAGAGAGGTCTC
CACACCAAAAAAAAAAAAAA
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- Restriction Sites:** ECoRI-NOT
- ACCN:** NM_006105
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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_006105.3 , NP_006096.2
RefSeq Size:	3327 bp
RefSeq ORF:	2646 bp
Locus ID:	10411
UniProt ID:	O95398
Cytogenetics:	12q13.11
Domains:	DEP, cNMP, RasGEFN, RasGEF
Protein Pathways:	Leukocyte transendothelial migration, Long-term potentiation
Gene Summary:	<p>Guanine nucleotide exchange factor (GEF) for RAP1A and RAP2A small GTPases that is activated by binding cAMP. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which it activates the PI3K gamma complex and which is involved in angiogenesis. Plays a role in the modulation of the cAMP-induced dynamic control of endothelial barrier function through a pathway that is independent on Rho-mediated signaling. Required for the actin rearrangement at cell-cell junctions, such as stress fibers and junctional actin.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) contains an alternate 5' exon and differs in the 5' UTR, compared to variant 1. These differences cause translation initiation at a downstream AUG and an isoform (b) with a shorter N-terminus compared to isoform a. Variants 2 and 3 encode the same isoform.</p>