

Product datasheet for **SC116327**

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:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_006105, the custom clone sequence may differ by one or more nucleotides

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ATGGTGTTGAGAAGGATGCACCGGCCCGAAGCTGCTCCTACCAGCTGCTGCTGGAGCACCAGCGTCCGA
GCTGCATCCAGGGGCTGCGCTGGACACCACTACCAACAGCGAGGAGTCCCTGGATTTACGCGAGAGCCT
GGAGCAGGCCTCCACAGAGCGGGTCTCAGGGCTGGGAGGCAGCTGCATCGGCATCTGCTGGCCACCTGC
CCAAACCTCATCCGAGACCGGAAGTACCACCTTAGGCTCTATCGGCAGTGTCTGCTGGCCGGGAGCTGG
TGGATGGGATCTTGGCCCTGGGACTTGGGGTCCATTCCCGGAGCCAAGTTGTGGGAATCTGCCAGGTGCT
GCTGGATGAAGGTGCCCTCTGCCATGTGAAACACGACTGGGCCTTCCAGGACCGAGATGCCAAATTCTAC
CGGTTCCCGGGCCCGAGCCGAGCCCGTGGAACTCATGAGATGGAGGAGGAGTTGGCCGAAGCTGTGG
CCCTGCTCTCCAGCGGGGGCTGACGCCCTGCTCACTGTGCACTTCGAAAGCCCCAGGTGACGCGAC
GGATGAAGAGCTGGACCTCATCTTTGAGGAGTGTGCACATCAAGGCTGTGGCCACCTCTCCAACCTCG
GTGAAGCGAGAATTAGCGGCTGTTCTGCTCTTTGAACCACACAGCAAGGCAGGGACCGTGTGTTACGCC
AGGGGGACAAGGGCACTTCGTGGTACATTATCTGGAAGGGATCTGTCAACGTGGTGACCCATGGCAAGGG
GCTGGTGACCACCTGCATGAGGGAGATGATTTGGACAGCTGGCTCTGGTGAATGATGCACCCCGGGCA
GCCACCATCATCTGCGAGAAGCAACTGTCATTTCTGCGTGTGGACAAGCAGGACTTCAACCGTATCA
TCAAGGATGTGGAGGCAAGACCATGCGGCTGGAAGAATGGCAAAGTGGTGTGGTGTGGAGAGAGC
CTCTCAGGGCGCCGGCCCTTCCCGACCCCAACCCAGGCAGGAACCGGTATACAGTGTGTCTGGCACC
CCAGAGAAGATCCTAGAGCTTCTGTTGGAGGCCATGGGACCAGATTCCAGTGTCTATGACCCAACAGAGA
CATTCTCAGCGACTTCTCTGACCCACAGGGTCTTTCATGCCACGCGCCAACTCTGCGCTGCCCTTCT
GCACCACTTCCATGTGGAGCCTGCGGGTGGCAGCGAGCAGGAGCGCAGCACCTACGTCTGCAACAAGAGG
CAGCAGATCTTGGCGCTGGTCAAGCAGTGGTGGCCCTGTATGGTCCATGCTCCACACTGACCCGTGG
CCACCAGCTTCTCCAGAACTCTCAGACTGGTGGGCAGGGACACCCGACTCAGCAACCTGCTGAGGGGA
GCAAGTGGCCAGAGAGGCGCGATGCCACAGGTTGGAGAATGGCTGTGGGAATGCATCTCCTCAGATGAAG
GCCCGAACTTGCTGTTGGTCCCAACAGGACGAGCCCTTCTGCGCAGCAGCTGTGCCATCCAAG
TTGGGGATAAAGTCCCCTATGACATCTGCCGGCCAGACCACTCAGTGTGACCCTGCAGCTGCCTGTGAC
AGCCTCCGTGAGAGAGGTGATGGCAGCGTTGGCCAGGAGGATGGCTGGACCAAGGGGCAGGTGCTGGTG
AAGGTCAATTCTGCAGGTGATGCCATTGGCCTGCAGCCAGATGCCCGTGGTGTGGCCACATCTCTGGGGC
TCAATGAGCGTCTTTTGTGTCAACCCACAGGAAGTGCATGAGCTGATCCACACCCTGACCAGCTGGG
GCCCACTGTGGGCTCTGTGAGGGGCTGGACCTGGTGTGAGTCCAAGGACCTGGCAGGCCAGCTGACGGAC
CAGCACTGGAGCCTTCAACAGTATCCACCAGGTGGAGCTGATCCAATATGTGCTGGGCCCCAGCATC
TGGCGGATGTACCACCGCCAACCTGGAGCGCTTTCATGCGCCGCTTCAATGAGCTGCAGTACTGGGTGGC
CACCGAGCTGTGTCTCTGCCCGTGGCCGGCCCGGGCCAGCTGCTCAGGAAGTTCATTAAGCTGGCG
GCCACCTCAAGGAGCAGAAGAACTCAATTCTTCTTTGCCGTGATGTTGGCCTCAGCAACTCGGCCA
TCAGCCGCTAGCCACACCTGGGAGCGGCTGCCTCACAAGTCCGGAAGCTGTACTCCGCCCTCGAGAG
GCTGCTGGATCCCTCATGGAACCAACCGGTATACCGACTGGCCCTCGCCAAGCTCTCCCCTCTGTATC
CCCTTTCATGCCCTTCTCTCAAAGACATGACCTTCATTTCATGAGGGAACCACACTAGTGGAGAATC
TCATCAACTTTGAGAAGATGAGAATGATGGCCAGAGCCGCGGATGCTGCACCAGTCCCGAAGCCACAA
CCCTGTGCTCTCTCACCCTCAGAAGCCGAGTTTCCACCTCCACGAGGACAGCCAGGTGGCGAGGATT
TCCACATGCTCGGAGCAGTCCCTGAGCACCAGGAGTCCAGCCAGCACCTGGGCTTATGTCCAGCAGCTGA
AGGTCAATTGACAACCAGCGGAACTCTCCGCCTCTCCGAGAGCTGGAGCCATGA
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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_006105 unedited</p> <pre>AATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGCCCCACCAC GCCCCACCCCTCTACTACCCAAGAGGAGCCTCTCCACCGAGCCCTGCATCCTGCTGCC CTGGCAGCCAGTCCAGCTAGGCACTGGCCAGTTCCTGTACCTGGACTTACCCACTGGC ACCTTCCGGATCCCCTTATCAAAGCTGATGGGGTTCGCTGGGGACCCCCAGCCTTTTGC TAGAGCCTGCACGGCTGTGCGAGCTTAAAAGAAACATGAAGTGGGCTGGCCAGGTGAG AGCTGCTGGCAGGTGGCCCTGCCTGTGGAGGATAGCCAGCTCTGGGAGCACCCGCGGTG GGAGCCCTCCCTGACGTGGTGCCGGAGGGGACACTACTCAACATGGTGTGAGAAGGATG CACCGGCCCGAAGCTGCTCCTACCAGCTGCTGCTGGAGCACCAGCGTCCGAGCTGCATC CAGGGGCTGCGCTGGACACCACTACCAACAGCGAGGAGTCCCTGGATTTAGCGAGAGC CTGGAGCAGGCCCTCCACAGAGCGGGTGTCTCAGGGCTGGGAGGCAGCTGCATCGGCATCTG CTGGCCACTGCCAAACCTCATCCGAGACCGAAGTACCACCTTANGCTCTATCGGCAG TGCTGCTCTGGCCGGGAGCTGGTGGATGGGATCTTGGCCCTGNNGACTTGGGTCCATTCC CGGACCAAGTTGTGGGAATCTGNCCAGTCTGCTGGATGAAGTGCCTCTGCCATGTGAA ACACGACTGGGCCTTTNCAGACCGAGATGCCAATTCTACCGGNTCCCCGGGCCCGAGCC CGAGCCCTGGGGACTCATGAGATGGANNAGAGTNGNCGAANCTGTGC</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_006105 unedited</p> <pre>CCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTGGTGTGGAGACCTCTCTATTG CACACAACGTCCCAGCACACTCCACTCTCCACCCACTCCTGGGGCCTCTGTCTCCCT TCCTTGGCCTTGGGTCAATCGTTATTCCTGGCTCGGGTCCACTCCGAGGTCTCCTTAGC TGCCAGTCATCACAGGGGATGGCTGCCTCCACACTGCCTGCTCCAGGGACTCGAGTCCAC TCCACGGAGAGCCTTGCCAGCTGTGGCAGCCTGTGAGTATCTTGGCCCGGCACACCCT GGCTTTCGGGCTGCAAGTGCCTGCTCCAGCTCCAGTCCAGCCCTCCTCATGGCTCCA GCTCTCGGGAGAGGGCGGAGAGTTCCCGCTGGTGTCAATGACCTTACCTGCTGGACAT AAGCCCAGGTGCTGGCTGGACTCCGGGTGCTCACGGACTGCTCCGAGCCTGTGGAATCC TCCCCACTGGCTGTCTCGCGGAGGTGGGAACTCGGCTCCTGAGTGGTACAGAGGCA CAGGGCTGTGGCTTCGGCAGTGGTGCAACATCCGTGCGGGTCTGGCCATCATTCTCATCT TTTTACAACAACGGGGCCGAACGGGATGACAGGAGCGAAAGCTCCGGCCAGGCCANT CGGTATACCCGGGGCTTCATGACGGACCCACCTTCCCTTGGGGGGAAACAATTTCC GGCCTTGGGCGCAATCCCTTCCACCCCGGTTAGGTGCGCGTTGTCCAATCCCCCG GCCACCCCTCCTCGTAACAACGAATTCCTTATCTCCGCTCCTTCCGCGCCCGCCGCC CTTAATTTATCCCTCAACTCGGCCCGTTGCGCCCTCTGCGCCACACCCCTCTGC GAATCTTATCCCCCCCCCTACTTCGCTTATACCGACCCT</pre>
Restriction Sites:	ECoRI-NOT
ACCN:	NM_006105
Insert Size:	3570 bp
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).
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>