OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC309903

TIAM1 (NM_003253) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TIAM1 (NM_003253) Human Untagged Clone
Tag:	Tag Free
Symbol:	TIAM1
Synonyms:	TIAM-1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

```
>OriGene sequence for NM_003253 edited
ATGGGAAACGCAGAAAGTCAACATGTAGAGCACGAGTTTTATGGAGAAAAGCATGCCAGC
CTGGGGCGCAAGCACACTTCCCGCTCCCTGCGCCTCTCGCACAAGACGCGGAGGACCAGG
CACGCTTCCTCGGGGAAGGTGATCCACAGGAACTCCGAAGTGAGCACCCGATCCAGCAGC
ACCCCCAGCATCCCCCAGTCCCTGGCTGAAAATGGCCTGGAGCCCTTCTCCCAAGATGGT
ACCCTAGAAGACTTCGGGAGCCCCATCTGGGTGGACCGAGTGGACATGGGCTTGAGACCT
GTGTCTTACACTGACTCTTCTGTCACTCCCAGCGTAGACAGCAGCATCGTCCTCACAGCA
GCCTCTGTGCAGAGCATGCCAGACACTGAGGAGAGCAGGCTTTACGGGGATGACGCTACA
TATTTGGCTGAGGGAGGCAGGAGGCAGCATTCCTATACATCCAATGGGCCCACTTTCATG
GAGACGGCGAGCTTTAAGAAGAAACGCTCCAAATCTGCAGACATCTGGCGGGAGGACAGC
CTGGAATTCTCACTCTCTGATCTGAGCCAAGAACATTTAACAAGCAACGAAGAAATCTTG
GGTTCCGCCGAAGAGAAGGACTGCGAGGAGGCTCGGGGGATGGAAACGCGGGCGAGTCCG
CGGCAGCTCAGCACCTGTCAGAGAGCCAATTCCTTGGGTGACTTGTATGCTCAGAAAAAC
TCTGGAGTGACAGCAAACGGGGGGCCGGGGAGCAAATTTGCAGGCTACTGTCGGAATTTG
GTGTCTGATATTCCCAATCTTGCAAACCATAAGATGCCACCAGCTGCTGCTGAAGAGACT
CCTCCGTACAGTAATTATAACACACTTCCCTGTAGGAAATCTCACTGTCTCTCTGAAGGT
GCCACCAACCCACAAATTAGCCATAGCAACAGCATGCAAGGCAGAAGAGCTAAAACAACT
CAGGATGTTAATGCAGGCGAGGGCAGTGAGTTTGCAGACAGTGGGATTGAAGGGGCCACT
ACCGACACGGACCTCCTGTCCAGGCGATCTAATGCCACCAACTCCAGCTACTCACCCACC
ACAGGCCGGGCCTTTGTGGGCAGCGACAGCGGCAGCAGCTCCACCGGGGATGCGGCTCGT
CAGGGGGTGTACGAGAACTTCCGGCGGGAGCTGGAGATGAGCACCACCAACAGCGAGAGC
CTGGAGGAGGCCGGCTCGGCGCACAGCGATGAGCAGAGCAGCGGCACCCTGAGCTCTCCG
GGCCAGTCGGACATCCTGCTGACCGCCGCACAGGGCACGGTGCGCAAGGCCGGCGCCCTG
GCCGTCAAGAACTTCCTGGTGCACAAGAAGAACAAGAAGGTGGAGTCAGCCACCCGGAGG
AAGTGGAAGCACTACTGGGTGTCCCTGAAAGGATGCACGCTATTTTTCTACGAGAGCGAC
GGCAGGTCTGGGATAGACCACAACAGCATCCCCAAACACGCCGTCTGGGTGGAGAACAGC
ATTGTGCAGGCGGTGCCTGAGCACCCCAAGAAGGACTTTGTCTTCTGCCTCAGCAATTCC
```


View online »

CTGGGTGATGCCTTCCTTTTTCAGACCACTAGCCAGACGGAGCTTGAAAACTGGATCACC
GCCATCCACTCTGCCTGCGCCACTGCGGTCGCGAGGCACCACCACAAGGAAGACACGCTC
CGACTCCTGAAATCAGAGATCAAAAAACTGGAACAGAAGATTGACATGGATGAAAAGATG
AAGAAAATGGGTGAAATGCAGCTGTCTTCAGTCACTGACTCAAAGAAAAAGAAAACAATA
TTAGATCAGATCTTTGTCTGGGAGCAAAATCTCGAGCAGTTCCAAATGGACCTGTTTCGT
TTCCGCTGTTATTTAGCCAGCCTTCAGGGTGGGGAGCTGCCAAACCCCAAAAGGCTTCTC
GCTTTTGCAAGTCGACCAACGAAAGTGGCCATGGGCCGCCTTGGAATCTTTTCGGTATCA
TCGTTTCATGCCCTGGTGGCAGCACGCACTGGTGAAACTGGAGTGAGAAGACGTACTCAG
GCCATGTCCAGATCCGCGAGCAAGCGAAGGAGCAGGTTTTCTTCTCTGTGGGGTCTGGAT
ACTACCTCCAAAAAGAAGCAGGGACGGCCAAGCATCAATCAGGTGTTTGGAGAGGGAACC
GAAGCTGTAAAGAAATCTTTAGAGGGAATATTTGATGACATTGTTCCAGATGGCAAGAGG
GAGAAAGAAGTGGTCTTACCTAACGTTCACCAGCACAACCCTGACTGCGACATTTGGGTC
CACGAGTATTTCACTCCATCCTGGTTCTGTCTGCCCAATAATCAGCCTGCCCTGACGGTC
GTCCGGCCAGGCGACACTGCACGGGACACCCTGGAGCTGATTTGCAAGACACATCAACTG
GATCATTCTGCTCATTACCTGCGCCTGAAATTTCTAATAGAAAACAAAATGCAGCTCTAT
GTTCCACAGCCCGAGGAAGACATCTATGAGCTGCTGTACAAAGAAATTGAAATCTGTCCA
AAAGTCACTCAGAGCATCCACATTGAGAAGTCAGATACAGCTGCTGATACTTACGGGTTT
TCACTTTCTTCTGTGGAAGAAGATGGTATTCGAAGGCTGTACGTGAATAGTGTGAAGGAA
ACCGGTTTAGCTTCCAAGAAAGGCCTGAAAGCAGGAGATGAGATTCTTGAGATCAATAAT
CGTGCTGCTGACGCCCTGAACTCTTCTATGCTCAAAGATTTCCTCTCACAGCCCTCGCTG
GGCCTCCTGGTGAGGACCTACCCCGAGCTGGAGGAAGGAGTGGAGCTGCTGGAAAGCCCG
CCCCACCGAGTGGACGGCCCTGCCGACCTTGGCGAGAGCCCCCTCGCCTTTCTCACCAGC
AACCCAGGGCACAGCCTTTGCAGCGAGCAGGGCAGCAGTGCTGAGACCGCTCCAGAGGAG
ACCGAGGGGCCAGACTTGGAATCCTCAGATGAGACTGATCACAGCAGCAAGAGTACAGAA
CAGGTGGCCGCATTTTGCCGCAGTTTGCATGAGATGAACCCCTCTGACCAGAGCCCATCT
CCTCAGGACTCCACGGGGCCTCAGCTGGCGACCATGAGACAACTCTCGGATGCAGATAAG
CTGCGCAAGGTGATCTGCGAGCTCCTGGAGACGGAGCGCACCTACGTGAAGGATTTAAAC
TGTCTTATGGAGAGATACCTAAAGCCTCTTCAAAAAGAAACTTTTCTCACCCAGGATGAG
CTTGACGTGCTTTTTGGAAATTTAACGGAAATGGTAGAGTTTCAAGTAGAATTCCTTAAA
ACTCTAGAAGATGGAGTGAGACTGGTACCTGATTTGGAAAAGCTTGAGAAGGTTGATCAA
TTTAAGAAAGTGCTGTTCTCTCTGGGGGGATCATTCCTGTATTATGCTGACCGCTTCAAG
CTCTACAGTGCCTTCTGCGCCAGCCACACAAAAGTTCCCAAGGTCCTGGTGAAAGCCAAG
ACAGACACGGCTTTCAAGGCATTCTTGGATGCCCAGAACCCGAAGCAGCAGCACTCATCC
ACGCTGGAGTCGTACCTCATCAAGCCCATCCAGAGGATCCTCAAGTACCCACTTCTGCTC
AGGGAGCTGTTCGCCCTGACCGATGCGGAGAGCGAGGAGCACTACCACCTGGACGTGGCC
ATCAAGACCATGAACAAGGTTGCCAGTCACATCAATGAGATGCAGAAAATCCATGAAGAG
TTTGGGGCTGTGTTTGACCAGCTGATTGCTGAACAGACTGGTGAGAAAAAAGAGGTTGCA
GATCTGAGCATGGGAGACCTGCTTTTGCACACTACCGTGATCTGGCTGAACCCGCCGGCC
TCGCTGGGCAAGTGGAAAAAGGAACCAGAGTTGGCAGCATTCGTCTTCAAAACTGCTGTG
GTCCTTGTGTATAAAGATGGTTCCAAACAGAAGAAGAAACTTGTAGGATCTCACAGGCTT
TCCATTTATGAGGACTGGGACCCCTTCAGATTTCGACACATGATCCCCACGGAAGCGCTG
CAGGTTCGAGCTTTGGCGAGTGCAGATGCAGAGGCAAATGCCGTGTGTGAAATTGTCCAT
GTAAAATCCGAGTCTGAAGGGAGGCCGGAGAGGGTCTTTCACTTGTGCTGCAGCTCCCCA
GAGAGCCGAAAGGATTTCCTAAAGGCTGTGCATTCAATCCTGCGTGATAAGCACAGAAGA
CAGCTCCTCAAAACCGAGAGCCTTCCCTCATCCCAGCAATATGTCCCTTTTGGAGGCAAA
AGATTGTGTGCACTGAAGGGGGCCAGGCCGGCCATGAGCAGGGCAGTGTCTGCCCCAAGC
AAGTCTCTTGGGAGGAGGAGGCGGCGGCTGGCTCGAAACAGGTTTACCATTGATTCTGAT
GCCGTCTCCGCAAGCAGCCCGGAGAAAGAGTCCCAGCAGCCCCCCGGTGGTGGGGACACT
GACCGATGGGTAGAGGAGCAGTTTGATCTTGCTCAGTATGAGGAGCAAGATGACATCAAG
GAGACAGACATCCTCAGTGACGATGATGAGTTCTGTGAGTCCGTGAAGGGTGCCTCAGTG
GACAGAGACCTGCAGGAGCGGCTTCAGGCCACCTCCATCAGTCAGCGGGAAAGAGGCCGG
AAAACCCTGGATAGTCACGCGTCCCGCATGGCACAGCTCAAGAAGCAAGCTGCCCTGTCG

GGGATCAATGGAGGCCTGGAGAGCGCAAGCGAGGAAGTCATTTGGGTTAGGCGTGAAGAC
TTTGCCCCCTCCAGGAAACTGAACACTGAGATCTGA

Restriction Sites:	Please inquire
ACCN:	NM_003253
Insert Size:	4800 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).
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:	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_003253.1, NP_003244.1
RefSeq Size:	5521 bp
RefSeq ORF:	4776 bp
Locus ID:	7074
UniProt ID:	Q13009
Cytogenetics:	21q22.11
Domains:	RhoGEF, PDZ, PH, RBD
Protein Families:	Druggable Genome
Protein Pathways:	Chemokine signaling pathway, Regulation of actin cytoskeleton

Gene Summary: This gene encodes a RAC1-specific guanine nucleotide exchange factor (GEF). GEFs mediate the exchange of guanosine diphosphate (GDP) for guanosine triphosphate (GTP). The binding of GTP induces a conformational change in RAC1 that allows downstream effectors to bind and transduce a signal. This gene thus regulates RAC1 signaling pathways that affect cell shape, migration, adhesion, growth, survival, and polarity, as well as influencing actin cytoskeletal formation, endocytosis, and membrane trafficking. This gene thus plays an important role in cell invasion, metastasis, and carcinogenesis. In addition to RAC1, the encoded protein activates additional Rho-like GTPases such as CDC42, RAC2, RAC3 and RHOA. This gene encodes multiple protein isoforms that experience a diverse array of intramolecular, protein-protein, and phosphorylation interactions as well as phosphoinositide binding. Both the longer and shorter isoforms have C-terminal Dbl homology (DH) and pleckstrin homology (PH) domains while only the longer isoforms of this gene have the N-terminal myristoylation site and the downstream N-terminal PH domain, ras-binding domain (RBD), and PSD-95/DlgA/ZO-1 (PDZ) domain. [provided by RefSeq, Jul 2017]