

## Product datasheet for **SC311417**

### ACK1 (TNK2) (NM\_001010938) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACK1 (TNK2) (NM_001010938) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACK1
Synonyms:	ACK; ACK-1; ACK1; p21cdc42Hs
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_001010938 edited  
 ATGCTCGAGGCCCGCCCCCAGGACGCAGGGCAGTGACGCTGCCGGTGCCGCTGCGGGG  
 GGGGGCTGCGGGCGCTGCTTCTCCCTGACCGCAGCCGCTGGGATTTGGGGCTCCATG  
 GGGGAGAGATCTGCTTACCAGCGCTGGCTGGGGGCGAGGAGGGACCGCAGAGGCTGGGA  
 GGCGGCAGAATGCAGCCAGAGGAGGGCACAGGCTGGCTGCTGGAGCTGCTGCCAGGTG  
 CAGCTGCAACAGTACTTCTGCGCTCCGAGACGACCTCAACGTCACCCGCTGTCCAC  
 TTTGAGTACGTCAAGAATGAGGACCTGGAGAAGATCGGCATGGGTGCGCCTGGCCAGCGG  
 CGGCTGTGGGAGGCTGTGAAGAGGAGGAAGGCCTGTGCAAACGCAAGTCGTGGATGAGT  
 AAGGTGTTCAAGTGAAGCGACTGGAGGCTGAGTCCCACCTCATCACTCTCAGAGCACC  
 TTCCGGAAGACCTCGCCCGCCCTGGGGGCCAGCAGGGGAGGGGCCCTGCAGAGCCTC  
 ACCTGCCTCATTGGGGAGAAGGACCTGCGCCTCCTGGAGAAGCTGGGTGATGGTTCCTTT  
 GGCGTGGTGCAGAGGGCGAGTGGGACGCGCCCTCAGGGAAGACGGTGAGTGTGGCTGTG  
 AAGTGCCTGAAGCCCGATGTCCTGAGCCAGCCAGAAGCCATGGACGACTTCATCCGGGAG  
 GTCAATGCCATGCACTCGCTCGACCACCGAAACCTCATCCGCCTCTACGGGGTGGTGCTC  
 ACGCCGCCCATGAAGATGGTGACAGAGCTGGCACCTCTGGGATCGTTGTTGGACCGGCTA  
 CGTAAGCACCAGGGCCACTTCTCTGGGACTCTGAGCCGCTACGCTGTGCAGGTGGCT  
 GAGGGCATGGGCTACCTGGAGTCCAAGCGCTTTATTACCGTGACCTGGCTGCCCGCAAT  
 CTGCTGTTGGCTACCCGCGACCTGGTCAAGATCGGGGACTTTGGGCTGATGCGGAGACTA  
 CCTCAGAATGACGACATTACGTATGCAGGAACATCGCAAGGTGCCCTTCGCCTGGTGT  
 GCCCCGAGAGCCTGAAGACACGTACCTTCTCCATGCCAGCGACACCTGGATGTTCCGGG  
 GTGACACTGTGGGAAATGTTACCTACGCCCAGGAGCCCTGGATCGGCCTCAACGGCAGT  
 CAGATCTGCATAAGATCGACAAGGAGGGGGAGCGGCTGCCCGGCCCGAGGACTGTCC  
 CAGGACATCTACAACGTATGGTCCAGTCTGGGCTCACAAGCCAGAGGACAGACCCACG  
 TTTGTGGCCCTGCGGGACTTCTGCTGGAGGCCAGCCACAGACATGCGGGCCCTTCAG  
 GACTTTGAGGAACCGACAAGCTGCACATCCAGATGAATGATGTCATCACCGTCATCGAG  
 GGAAGGGCCGAGAACTACTGGTGGCGTGGCCAGAACACACGGACGCTGTGTGTGGGGCC  
 TTCCCTCGCAACGTGGTACCTCCGTGGCCGGCCTGTCCGCCAGGACATCAGCCAGCCC



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CTGCAGAACAGCTTCATCCACACAGGGCATGGCGACAGTGACCCCCGCCACTGCTGGGGC  
TTCCCGGACAGGATTGACGAAGTGTATCTGGGAAACCCCATGGACCCCCCGACCTCCTG  
AGCGTGGAAGTGAACCTCCCGGCCCCCAGCATCTAGGAGGGGTGAAAAACCAACC  
TATGACCTGTGAGCGAGGACCAAGACCCTTGTCCAGCGACTTCAAGAGGCTGGGCCTG  
CGGAAGCCAGGCTGCCCGAGGGCTGTGGCTGGCGAAGCCCTCGGCGCGGGTGCCGGGC  
ACCAAGCCAGCCGAGGACGCGGGGTGAGGTCACGCTCATCGACTTCGGTGAGGAGCCC  
GTGGTCCCGGCCCTACGGCCCTGCGGCCCTCCCTGGCGCAGCTGGCCATGGACGCCTGC  
TCCTGTGAGACGAGACCCCGCCTCAGAGCCCCACGCGGGCACTGCCCGGCCCTGCAC  
CCCACGCCTGTGGTGGACTGGGACGACGCCCGCTGCCCGGCCCGCCCTATGACGAC  
GTGGCCAGGATGAGGATGACTTTGAGATCTGCTCCATCAACAGCACCCCTCGTGGGCGG  
GGGGTCCCTGCCGGGCCAGCCAGGGCCAGACCACTACGCTTTGTGCCTGAGCAGGG  
CGGCCGCCCTCCCTGGAGGACAACCTGTTCTCCCGCCCAGGGTGGGGCAAGCCG  
CCCAGCTCCGACAGACCGCAGAGATCTCCAGGCCTACAGCAGGAGTGCATGAGGCAA  
CTGAGGCTCCGGCCGGTCCCGGCCCTCTCCAGCCGGGGGTGACGACAAGCCC  
CAGGTGCCTCCTCGGGTACCCATCCCCCTCGGCCACGCGCCACACGTCAGTGTCT  
CCAGCCCCCGGGCAGGAGGAGACCAGCCAGTGGCCTGGACCTGCTTCCCTCCCGG  
GTGCCTCCCGGGAGCCCTGTCCCTCAAGGCTCGAGGACACCCAGCCCCCTGGTACCA  
CCTGGCAGCTCCCGCTGCCACCCCGGCTCTAAGCTCACCTGGGAAGACCATGCCACC  
ACCCAGAGCTTTGCCTCAGACCCCAAGTACGCCACCCCCAGGTGATCCAGGCCCTGGC  
CCGCGGGCTGGTCCCTGCATCCTGCCATCGTCCGGATGGCAAGAAGGTGAGCAGCACC  
CACTATTACTTGTGCCCCAGCGACCATCTACCTGGAGCGCTACCAGCGCTTCTGCGT  
GAGGCCAGAGCCCCGAGGAGCCTACCCCTGCTGTGCCTGTGCTGCCCCACCC  
AGCACCCAGCCCCCGCCGCCACCGCCACCGTGCAGGCGGATGCCCCAGGCTGCCTTG  
GACCCCAAGGCCAATTCTCCACCAACAACAGCAACCCAGGGGCCCGGCCACACCCCG  
AGGGCCACTGCTCGGCTGCCACAGAGGGCTGCCCTGGCGATGGGCCAGAGGCGGGCCGG  
CCAGCAGACAAGATCCAGATGCTGCAGGCCATGGTGCATGGGGTGACCACAGAGGAGTGC  
CAGGGCCCTGCAGTGCCACGGCTGGAGCGTGCAGAGGGCTGCCAGTATCTGAAGGTG  
GAGCAGCTCTTCGGGCTGGGTCTGCGGCCAGAGGGGAGTCCACAAAGTGTGGAGATG  
TTCGACTGGAACCTGGAGCAGGCCGGTGCACCTTCTGGGCTCCTGGGGCCTGCCAC  
CACAAGCGCTGAGATGCGTCTGGAGAGCCAGAGGGCTGCCTGAAGGAATCACCTGAGCC  
TGTCCGTCCACCAGGAGTGGGGAGATGCCCCATCCAGTCTGGAGACCCGCTGCTCCT  
GCTGCTCCCGGGATGGAGCAAGGCCAAGGCTGCGGGAGGCTGGGAGCCCTGCCCTGCC  
ATCCCTCCTGCACCAGCGCTGTCCCTGCACACTTTGGTTCACTCCCGGTGCCCTGCCAA  
GATGTGGAAGGGGCCGGTGAAGACAGGCTTGGGGCTGCCCCAGCAGGCTCTGGGTATG  
ACCTGCCTCTGGCCCTGGTCTGGGGCGGGCCTGTGGGTGGAGTGTACCCCCAGGCCCT  
GCCCTGGGTGACAGACTGGGAGGAAACCAGGCTGGACCTGGGCAGGCGGGATGTGTTGGC  
CACAGGGAGAGGCGGACCCGACCCGGTGGGACCTCCTAGGACTGGGCCTTCTCCAGGG  
GGCCCCGAGCAGCTGGGGTGTGGGCAGAAATGTGACTTGTGGCTTCCCGAGCCTGT  
TGATGAAGTTGCTGTTGCCTGCATCTAGTACGTGTTGTTCCACAGAAATAAAGTTAGTTT  
GTATTTTATGTTAAAACAAAACAATAAACTC

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_001010938 unedited GATCAAACCTCCCGCCCGTTGNCGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATAT AAGCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGC CGCGAATTCATGCTCGAGGCCCGGCCCCAGGACGCAGGGCAGTGACGCTGCCGGTGCC GCTGCGGGGGCGGGGCTGCGGGCGCTGCTTCTCTCCCTGACCGCAGCCGCTGGGATTTGG GGCTCCATGGGGGAGAGATCTGCTTACCAGCGCCTGGCTGGGGGCGAGGAGGGACCGCAG AGGCTGGGAGGGCGAGAATGCAGCCAGAGGAGGGCACAGGCTGGCTGCTGGAGCTGCTG TCCGAGGTGCAGCTGCAACAGTACTTCTGCGGCTCCGAGACGACCTCAACGTCAACCCGC CTGTCCCACTTTGAGTACGTCAAGAATGAGGACCTGGAGAAGATCGGCATGGGTCCGCCT GGCCAGCGCGGCTGTGGGAGGCTGTGAAGAGGAGGAAGGCCCTTGCAAACGCAAGTCG TGGATGAGTAAGGTGTTCACTGGAAGCGACTGGAGGCTGAGTCCCACCTCATCACTCT CAGAGCACCTCCGGAAGACCTCGCCCGCCCTGGGGGCCAGCAGGGGAGGGGCCCTG CAGAGCCTCACCTGCCTATTGGNGAGAAGGACCTGCGCCTCTGGAGAAGCTGGGTGAT GGTTCCTTTGCCGTTGTGCGCAGGGCAAGTGGGACGCGCCCTCAGGGAAGACGGTGAGT GTGGCTGTGAAGTGCCTGAAGCCCCGATGTCTGGAGCAACCCAGAGCCATGGACAATTTA TTCGGGGAGGTATGGCATGCACTCGCTCGACCACCGAACCCCTTTTCGGCTTTAGGGG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_001010938
<b>Insert Size:</b>	4000 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	It is not a variant.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001010938.1</a></u> , <u><a href="#">NP_001010938.1</a></u>
<b>RefSeq Size:</b>	4222 bp
<b>RefSeq ORF:</b>	3261 bp
<b>Locus ID:</b>	10188
<b>UniProt ID:</b>	<u><a href="#">Q07912</a></u>
<b>Cytogenetics:</b>	3q29
<b>Protein Families:</b>	Druggable Genome, Protein Kinase

**Gene Summary:**

This gene encodes a tyrosine kinase that binds Cdc42Hs in its GTP-bound form and inhibits both the intrinsic and GTPase-activating protein (GAP)-stimulated GTPase activity of Cdc42Hs. This binding is mediated by a unique sequence of 47 amino acids C-terminal to an SH3 domain. The protein may be involved in a regulatory mechanism that sustains the GTP-bound active form of Cdc42Hs and which is directly linked to a tyrosine phosphorylation signal transduction pathway. Several alternatively spliced transcript variants have been identified from this gene, but the full-length nature of only two transcript variants has been determined. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) has a distinct 5' UTR and 5' coding region, lacks one alternate 3' coding exon, and contains a different alternate 3' coding exon, as compared to variant 1. The translation remains in-frame, and results in a longer isoform (2) that has a longer and distinct N-terminus, compared to isoform 1. CCDS Note: The coding region has been updated to start at a downstream in-frame start codon that is supported by conservation data.