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 SC323458

DAP Kinase 1 (DAPK1) (NM_004938) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DAP Kinase 1 (DAPK1) (NM_004938) Human Untagged Clone
Tag:	Tag Free
Symbol:	DAP Kinase 1
Synonyms:	DAPK; ROCO3
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC323458 sequence for NM_004938 edited (data generated by NextGen Sequencing)

ATGACCGTGTTCAGGCAGGAAAACGTGGATGATTACTACGACACCGGCGAGGAACTTGGC
AGTGGACAGTTTGCGGTTGTGAAGAAATGCCGTGAGAAAAGCACCGGCCTCCAGTATGCC
GCCATGTTCATCAAGAAAAGGAGGACTAAGTCCAGCCGGCGGGGTGTGAGCCGCGAGGAC
ATCGAGCGGGAGGTCAGCATCCTGAAGGAGATCCAGCACCCCAATGTCATCACCCTGCAC
GAGGTCTATGAGAACAAGACGGACGTCATCCTGATCTTGGAACTCGTTGCAGGTGGCGAG
CTGTTTGACTTCTTAGCTGAAAAGGAATCTTTAACTGAAGAGGAAGCAACTGAATTTCTC
AAACAAATTCTTAATGGTGTTTACTACCTGCACTCCCTTCAAATCGCCCACTTTGATCTT
AAGCCTGAGAACATAATGCTTTTGGATAGAAATGTCCCCAAACCTCGGATCAAGATCATT
GACTTTGGGTTGGCCCATAAAATTGACTTTGGAAATGAATTTAAAAACATATTTGGGACT
CCAGAGTTTGTCGCTCCTGAGATAGTCAACTATGAACCTCTTGGTCTTGAGGCAGATATG
TGGAGTATCGGGGTAATAACCTATATCCTCCTAAGTGGGGCCTCCCCATTTCTTGGAGAC
ACTAAGCAAGAAACGTTAGCAAATGTATCCGCTGTCAACTACGAATTTGAGGATGAATAC
TTCAGTAATACCAGTGCCCTAGCCAAAGATTTCATAAGAAGACTTCTGGTCAAGGATCCA
AAGAAGAGAATGACAATTCAAGATAGTTTGCAGCATCCCTGGATCAAGCCTAAAGATACA
CAACAGGCACTTAGTAGAAAAGCATCAGCAGTAAACATGGAGAAATTCAAGAAGTTTGCA
GCCCGGAAAAAATGGAAACAATCCGTTCGCTTGATATCACTGTGCCAAAGATTATCCAGG
TCATTCCTGTCCAGAAGTAACATGAGTGTTGCCAGAAGCGATGATACTCTGGATGAGGAA
GACTCCTTTGTGATGAAAGCCATCATCCATGCCATCAACGATGACAATGTCCCAGGCCTG
CAGCACCTTCTGGGCTCATTATCCAACTATGATGTTAACCAACCCAACAAGCACGGGACA
CCTCCATTACTCATTGCTGCTGGCTGTGGGAATATTCAAATACTACAGTTGCTCATTAAA
AGAGGCTCGAGAATCGATGTCCAGGATAAGGGCGGGTCCAATGCCGTCTACTGGGCTGCT
CGGCATGGCCACGTCGATACCTTGAAATTTCTCAGTGAGAACAAATGCCCTTTGGATGTG
AAAGACAAGTCTGGAGAGATGGCCCTCCACGTGGCAGCTCGCTATGGCCATGCTGACGTG
GCTCAGTTACTGTGCAGCTTCGGCTCAAATCCCAATATCCAGGACAAGGAAGAAGAAACC
CCCCTGCACTGTGCTGCTTGGCACGGCTATTACTCTGTGGCCAAAGCCCTTTGTGAAGCC

View online »

GGCTGTAACGTGAACATCAAGAACCGAGAAGGAGAGACGCCCCTCCTGACAGCCTCTGCC
AGGGGCTACCACGACATCGTGGAGTGTCTGGCCGAACATGGAGCCGATCTTAATGCTTGC
GACAAGGACGGACACATTGCCCTTCATCTGGCTGTAAGACGGTGTCAGATGGAGGTAATC
AAGACTCTCCTCAGCCAAGGGTGTTTCGTCGATTATCAAGACAGGCACGGCAATACTCCC
CTCCATGTGGCATGTAAAGATGGCAACATGCCTATCGTGGTGGCCCTCTGTGAAGCAAAC
TGCAATTTGGACATCTCCAACAAGTATGGGCGAACGCCTCTGCACCTTGCGGCCAACAAC
GGAATCCTAGACGTGGTCCGGTATCTCTGTCTGATGGGAGCCAGCGTTGAGGCGCTGACC
ACGGACGGAAAGACGGCAGAAGATCTTGCTAGATCGGAACAGCACGAGCACGTAGCAGGT
CTCCTTGCAAGACTTCGAAAGGATACGCACCGAGGACTCTTCATCCAGCAGCTCCGACCC
ACACAGAACCTGCAGCCAAGAATTAAGCTCAAGCTGTTTGGCCACTCGGGATCCGGGAAA
ACCACCCTTGTAGAATCTCTCAAGTGTGGGCTGCTGAGGAGCTTTTTCAGAAGGCGTCGG
CCCAGACTGTCTTCCACCAACTCCAGCAGGTTCCCACCTTCACCCCTGGCTTCTAAGCCC
ACAGTCTCAGTGAGCATCAACAACCTGTACCCAGGCTGCGAGAACGTGAGTGTGAGGAGC
CGCAGCATGATGTTCGAGCCGGGTCTTACCAAAGGGATGCTGGAGGTGTTTGTGGCCCCG
ACCCACCACCCGCACTGCTCGGCCGATGACCAGTCCACCAAGGCCATCGACATCCAGAAC
GCTTATTTGAATGGAGTTGGCGATTTCAGCGTGTGGGAGTTCTCTGGAAATCCTGTGTAT
TTCTGCTGTTATGACTATTTTGCTGCAAATGATCCCACGTCAATCCATGTTGTTGTCTTT
AGTCTAGAAGAGCCCTATGAGATCCAGCTGAACCAAGTGATTTTCTGGCTCAGTTTCCTG
AAGTCCCTTGTCCCAGTTGAAGAACCCATAGCCTTCGGTGGCAAGCTGAAGAACCCACTC
CAAGTTGTCCTGGTGGCCACCCACGCTGACATCATGAATGTTCCTCGACCGGCTGGAGGC
GAGTTTGGATATGACAAAGACACATCGTTGCTGAAAGAGATTAGGAACAGGTTTGGAAAT
GATCTTCACATTTCAAATAAGCTGTTTGTTCTGGATGCTGGGGCTTCTGGGTCAAAGGAC
ATGAAGGTACTTCGAAATCATCTGCAAGAAATACGAAGCCAGATTGTTTCGGTCTGTCCT
CCCATGACTCACCTGTGTGAGAAAATCATCTCCACGCTGCCTTCCTGGAGGAAGCTCAAT
GGACCCAACCAGCTGATGTCGCTGCAGCAGTTTGTGTACGACGTGCAGGACCAGCTGAAC
CCCCTGGCCAGCGAGGAGGACCTCAGGCGCATTGCTCAGCAGCTCCACAGCACAGGCGAG
ATCAACATCATGCAAAGTGAAACAGTTCAGGACGTGCTGCTCCTGGACCCCCGCTGGCTC
TGCACAAACGTCCTGGGGAAGTTGCTGTCCGTGGAGACCCCACGGGCGCTGCACCACTAC
CGGGGCCGCTACACCGTGGAGGACATCCAGCGCCTGGTGCCCGACAGCGACGTGGAGGAG
CTGCTGCAGATCCTCGATGCCATGGACATCTGCGCCCGGGACCTGAGCAGCGGGACCATG
GTGGACGTCCCAGCCCTGATCAAGACAGACAACCTGCACCGCTCCTGGGCTGATGAGGAG
GACGAGGTGATGGTGTATGGTGGCGTGCGCATCGTGCCCGTGGAACACCTCACCCCCTTC
CCATGTGGCATCTTTCACAAGGTCCAGGTGAACCTGTGCCGGTGGATCCACCAGCAAAGC
ACAGAGGGCGACGCGGACATCCGCCTGTGGGTGAATGGCTGCAAGCTGGCCAACCGTGGG
GCCGAGCTGCTGGTGCTGCTGGTCAACCACGGCCAGGGCATTGAGGTCCAGGTCCGTGGC
CTGGAGACGGAGAAGATCAAGTGCTGCCTGCTGCTGGACTCGGTGTGCAGCACCATTGAG
AACGTCATGGCCACCACGCTGCCAGGGCTCCTGACCGTGAAGCATTACCTGAGCCCCCAG
CAGCTGCGGGAGCACCATGAGCCCGTCATGATCTACCAGCCACGGGACTTCTTCCGGGCA
CAGACTCTGAAGGAAACCTCACTGACCAACACCATGGGGGGGTACAAGGAAAGCTTCAGC
AGCATCATGTGCTTCGGGTGTCACGACGTCTACTCACAGGCCAGCCTCGGCATGGACATC
CATGCATCAGACCTGAACCTCCTCACTCGGAGGAAACTGAGTCGCCTGCTGGACCCGCCC
GACCCCCTGGGGAAGGACTGGTGCCTTCTCGCCATGAACTTAGGCCTCCCTGACCTCGTG
GCAAAGTACAACACCAATAACGGGGCTCCCAAGGATTTCCTCCCCAGCCCCCTCCACGCC
CTGCTGCGGGAATGGACCACCTACCCTGAGAGCACAGTGGGCACCCTCATGTCCAAACTG
AGGGAGCTGGGTCGCCGGGATGCCGCAGACTTTTTGCTGAAGGCATCCTCTGTGTTCAAA
ATCAACCTGGATGGCAATGGCCAGGAGGCCTATGCCTCGAGCTGCAACAGCGGCACCTCT
TACAATTCCATTAGCTCTGTTGTATCCCGGTGA

Clone variation with respect to NM_004938.2
125 a=>t;126 a=>g;1608 c=>t;3597 c=>t;4037 g=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_004938 unedited
CCCGCCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCGCCGCGCAGAA
CCCGCAGCGCCGGCCTGGCAGGGCAGCTCGGAGGTGGGTGGGCCGCGCCGCCAGCCCGCTTGCAGGGTCC
CCATTGGCCGCCTGCCGGCCGCCCTCCGCCCAAAAGGCGGCAAGGAGCCGAGAGGCTGCTTCGGAGTGTG
AGGAGGACAGCCGGACCGAGCCAACGCCGGGGACTTTGTTCCCTCCGCGGAGGGGACTCGGCAACTCGCA
GCGGCAGGGTCTGGGGGCCCGGCGCCTGGGAGGGGATCTGCGCCCCCCCACTCACTCCCCTAGCTGTGTT
CCCGCCGCCCGCCCCCGGCTAGTCTCCGGCGCTGGGGCCTATGGTCGCCCTCCGACGCCCCTCCGAAGGG
ACCGGGGAACCTCCCAGGCCCCCGGAACTGGAAACGAATGCTTGAGGGGGCTTAGGGAGGCCCAGGACCG
GTGGGGAGGTTCGGGAACGGGAGCGGAATGGCCCTGGGCTTTGGGGAGGCTGCACATTTAACTGTGCCCG
TGTCTCGGCAGGAAACGCGTATAGATTCCACACCCCGAAAGCATTGGCCTGGGACATTTTGCGTGTAAAA
AGTCCCTGAAAAGG

Kinase Domain Sequence:

>SC323458 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
CGCGTGCATTGGCAGTGGAAGTTTGCGGTTGTGAAGAAATGCCGTGAGAAAAGCACCGGCCTCCAGTATG
CCGCCATGTTCATCAAGAAAAGGAGGACTAAGTCCAGCCGGCGGGGTGTGAGCCGCGAGGACATCGAGCG
GGAGGTCAGCATCCTGAAGGAGATCCAGCACCCCAATGTCATCACCCTGCACGAGGTCTATGAGAACAAG
ACGGACGTCATCCTGATCTTGGAACTCGTTGCAGGTGGCGAGCTG

Restriction Sites: Please inquire

ACCN: NM_004938

Insert Size: 6220 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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.

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_004938.1, NP_004929.1

RefSeq Size: 5910 bp

RefSeq ORF: 4296 bp

Locus ID:	1612
UniProt ID:	P53355
Cytogenetics:	9q21.33
Domains:	DEATH, pkinase, TyrKc, ANK, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Bladder cancer, Pathways in cancer
Gene Summary:	Death-associated protein kinase 1 is a positive mediator of gamma-interferon induced programmed cell death. DAPK1 encodes a structurally unique 160-kD calmodulin dependent serine-threonine kinase that carries 8 ankyrin repeats and 2 putative P-loop consensus sites. It is a tumor suppressor candidate. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2013] Transcript Variant: This variant (1) represents the longest transcript. Variants 1, 2, 3 and 4 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.