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 SC323652

ARK5 (NUAK1) (NM_014840) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARK5 (NUAK1) (NM_014840) Human Untagged Clone
Tag:	Tag Free
Symbol:	ARK5
Synonyms:	ARK5
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

View online »

Fully Sequenced ORF:

>OriGene ORF within SC323652 sequence for NM_014840 edited (data generated by NextGen Sequencing)

ATGGAAGGGGCCGCCGCGCCTGTGGCGGGGGACCGCCCCGACTTGGGGCTGGGGGCGCCG
GGCTCTCCCCGAGAGGCGGTGGCGGGGGCGACTGCAGCCCTGGAGCCCAGGAAGCCGCAC
GGGGTGAAGCGGCATCACCACAAGCACAACTTGAAGCACCGCTACGAGCTGCAGGAGACC
CTGGGCAAAGGCACCTACGGCAAAGTCAAGCGGGCCACCGAGAGGTTTTCTGGCCGAGTG
GTTGCTATAATGTCCATTCGTAAGGACAAAATTAAGGATGAACAAGACATGGTTCACATC
AGACGAGAGATTGAGATCATGTCATCTCTCAACCATCCTCATATCATCAGTATTTATGAA
GTGTTTGAGAACAAAGATAAGATTGTGATCATCATGGAATATGCCAGCAAAGGGGAGCTG
TACGATTACATCAGTGAGCGGCGACGCCTCAGTGAGAGGGAGACCCGGCACTTCTTCCGG
CAGATCGTCTCTGCTGTGCACTATTGTCACAAGAACGGTGTGGTCCACCGGGACTTGAAG
CTGGAAAATATACTGCTCGATGACAACTGCAATATTAAGATTGCTGACTTTGGGCTTTCC
AACCTGTACCAGAAGGATAAGTTCTTACAAACGTTTTGTGGGAGTCCACTCTATGCATCT
CCTGAGATTGTCAATGGGAGACCTTACCGAGGGCCAGAGGTGGACAGCTGGGCCCTGGGT
GTGTTGCTTTACACTCTTGTTTATGGAACAATGCCCTTCGATGGTTTCGATCACAAAAAC
CTCATTCGGCAAATCAGCAGCGGAGAGTACCGGGAGCCAACACAGCCCTCAGATGCTCGA
GGACTCATACGGTGGATGCTGATGGTGAACCCCGATCGCCGGGCCACTATTGAGGACATT
GCCAACCACTGGTGGGTGAACTGGGGCTATAAGAGCAGCGTGTGTGACTGTGATGCCCTC
CATGACTCTGAGTCCCCACTCCTGGCTCGGATCATTGACTGGCACCACCGTTCCACAGGG
CTGCAGGCTGACACCGAAGCCAAAATGAAGGGCCTGGCCAAACCCACGACCTCTGAGGTC
ATGCTAGAGCGGCAGCGGTCGCTGAAGAAATCCAAGAAAGAGAATGACTTTGCTCAGTCT
GGTCAGGATGCAGTGCCTGAAAGCCCATCCAAGTTGAGTTCTAAGAGGCCCAAGGGGATC
CTGAAGAAGCGAAGCAACAGCGAGCATCGCTCTCACAGCACTGGCTTCATTGAAGGTGTA
GTTGGTCCTGCCTTACCCTCTACTTTCAAGATGGAGCAGGACTTGTGCAGGACTGGCGTG
CTCCTCCCAAGCTCACCAGAGGCAGAGGTGCCGGGAAAACTCAGCCCCAAGCAGTCGGCC
ACGATGCCCAAGAAAGGCATCTTGAAAAAGACCCAGCAGAGAGAATCAGGTTACTACTCT
TCCCCAGAGCGCAGTGAGTCTTCGGAGCTGTTGGACAGTAATGATGTGATGGGCAGCAGC
ATCCCCTCCCCCAGCCCCCCGGACCCAGCCAGGGTAACCTCCCACAGCCTCTCCTGCCGG
AGGAAGGGCATCTTGAAACACAGCAGCAAATACTCAGCGGGCACCATGGACCCAGCCCTG
GTCAGCCCTGAAATGCCCACACTGGAATCCCTGTCAGAGCCTGGTGTCCCTGCCGAGGGC
CTCTCCCGGAGCTACAGCCGCCCTTCCAGTGTCATCAGCGATGACAGCGTGCTGTCCAGC
GACTCTTTTGACTTGCTGGATTTGCAGGAGAATCGCCCTGCCCGCCAGCGCATCCGCAGC
TGCGTCTCTGCAGAAAACTTCCTCCAGATCCAGGACTTTGAGGGGCTCCAGAACCGGCCC
CGGCCCCAGTACCTGAAGCGGTACCGGAACCGGCTGGCAGACAGCAGCTTCTCCCTCCTC
ACAGACATGGATGATGTGACTCAGGTCTACAAGCAAGCGCTGGAGATCTGCAGCAAGCTC
AACTAG

Clone variation with respect to NM_014840.2
251 a=>t;252 a=>g

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_014840 unedited
CCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGAGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAAC
CGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCCACCGCCGCCACC
TCGCCCGACGCTCCACAGCTCGCCGCGGCCGGGGGGCGGTGCGCGGACCGTGCGCGCCGCGGGCGCCAGA
TGTGCAGTCCCCGCCGCCGCCAGTGACCGAGCCGCAGTCCGAGCGGTATCGGGCCGCCTCCCTGATGCTG
CGGGGGCGACCTTGAGCGTACAGCGGCTTCCCTCGGTGGGGACCCCGACATCCCAGCGCTGTGCCGCGGT
GCTTGCCCTCTGTAGCCCGGCTCGCCCCGCGCTTGGGACATGGGAAGGGGCCCGCCGCCGCCTGGTGGCG
GGGGGACCGCCCCCGAACTGGGGGCTGGGGGCCGCCGGGCTTCTCCCCGAAAGGCGTTGCCGGGGCCAAC
TGCAGCCCTGGAGCCCAGAAGCCGCACGGGGGGAGCGGCATCACAAAGGCCCAACTTTGACCCCGCTCCG
ACTGCAGAAACCTGGGCAAAGGCCTCACGGCAAATCAAGCGGCACCGAAGGTTTCTGGCAATGGGTGCTA
AGTGCCTCTCAGAGCAAATTAGGTAGACAACA

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

Kinase Domain Sequence:	>SC323652 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 TACKCAGRACCTGGGCAAGGCACCTACGGCAAAGTCAAGCGGGCCACCGAGAGGTTTTCTGGCCGAGTGG TTGCTATAATGTCCATTCGTAAGGACAAAATTAAGGATGAACAAGACATGGTTCACATCAGACGAGAGAT TGAGATCATGTCATCTCTCAACCATCCTCATATCATCAGTATTTATGAAGTGTTTGAGAACAAAGATAAG ATTGTGATCATCATGGAATATGCCAGCAAAGGGGAGCTGTACGAT
Restriction Sites:	Please inquire
ACCN:	NM_014840
Insert Size:	2000 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:	Kinase deficit mutant (K84M)
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_014840.2, NP_055655.1
RefSeq Size:	6821 bp
RefSeq ORF:	1986 bp
Locus ID:	9891
UniProt ID:	O60285
Cytogenetics:	12q23.3
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

Gene Summary: Serine/threonine-protein kinase involved in various processes such as cell adhesion, regulation of cell ploidy and senescence, cell proliferation and tumor progression. Phosphorylates ATM, CASP6, LATS1, PPP1R12A and p53/TP53. Acts as a regulator of cellular senescence and cellular ploidy by mediating phosphorylation of 'Ser-464' of LATS1, thereby controlling its stability. Controls cell adhesion by regulating activity of the myosin protein phosphatase 1 (PP1) complex. Acts by mediating phosphorylation of PPP1R12A subunit of myosin PP1: phosphorylated PPP1R12A then interacts with 14-3-3, leading to reduced dephosphorylation of myosin MLC2 by myosin PP1. May be involved in DNA damage response: phosphorylates p53/TP53 at 'Ser-15' and 'Ser-392' and is recruited to the CDKN1A/WAF1 promoter to participate to transcription activation by p53/TP53. May also act as a tumor malignancy-associated factor by promoting tumor invasion and metastasis under regulation and phosphorylation by AKT1. Suppresses Fas-induced apoptosis by mediating phosphorylation of CASP6, thereby suppressing the activation of the caspase and the subsequent cleavage of CFLAR. Regulates UV radiation-induced DNA damage response mediated by CDKN1A. In association with STK11, phosphorylates CDKN1A in response to UV radiation and contributes to its degradation which is necessary for optimal DNA repair (PubMed:25329316).[UniProtKB/Swiss-Prot Function]

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2023 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US