

Product datasheet for **SC323361**

GAK (NM_005255) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GAK (NM_005255) Human Untagged Clone
Tag:	Tag Free
Symbol:	GAK
Synonyms:	DNAJ26; DNAJC26
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_005255, the custom clone sequence may differ by one or more nucleotides

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ATGTCGCTGCTGCAGTCGGCGCTCGACTTCTTGCGGGTCCAGGCTCCCTGGGCGGTGCTTCCGGCCGCG
ACCAGAGTGACTTCGTGGGGCAGACGGTGGAACTGGGCGAGCTGCGGCTGCGGGTGC GGCCGGTCTCTGGC
CGAAGGAGGGTTTGCATTTGTGTATGAAGCTCAAGATGTGGGAGTGGCAGAGAGTATGCATTAAGAGG
CTATTATCCAATGAAGAGGAAAAGAACAGAGCCATCATTCAAGAAAGTTTGCTTCATGAAAAAGCTTCCG
GCCACCCGAACATTGTCCAGTTTTGTTCTGCAGCGTCTATAGGAAAAGAGGAGTCAGACACGGGGCAGGC
TGAGTTCTCTTGTCTCACAGAGCTCTGTAAGGGCAGCTGGTGGAAATTTTGAAGAAAATGGAATCTCGA
GGCCCCCTTCGTGCGACACGGTTCTGAAGATCTTCTACCAGACGTGCCGCGCCGTGCAGCACATGCACC
GGCAGAAGCCGCCATCATCCACAGGGACCTCAAGGTTGAGAAGTTGTTGCTTAGTAACCAAGGGACCAT
TAAGCTGTGTGACTTTGGCAGTGCCACGACCATCTCGCACTACCCTGACTACAGCTGGAGCGCCAGAGG
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CTTCCGGCAGCACCCTTTTGAGGATGGAGCGAACTTCGAATAGTCAATGGGAAGTACTCGATCCCCCG
CACGACACGCAGTACACGGTCTTCCACAGCCTCATCCGCGCCATGCTGCAGGTGAACCCGGAGGAGCGGC
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AACATGCACGCCCTGGCTGCGGCAGGACCACAAGAAGCTCTGCGTCTGACTGCATGGACGGGAGAGCCG
CGTCTGCTGTGGCCGTCTGCTCCTTCTGTGCTTCTGCCGTCTTTCAGCACCGCGGAGGCCCGCTGTA
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CATGTT CAGCATGAAGCGCTGCCACCAGGCATCTGGCCATCCCACAAAAGGTACATCGAGTACATGTGT
GACATGGTGGCGGAGGAGCCCATCACACCCACAGCAAGCCCATCCTGGT GAGGGCCGTGGTCATGACAC
CCGTGCCGCTGTT CAGCAAGCAGAGGAGCGGCTGCAGGCCCTTCTGCGAGGTCTACGTGGGGGACGAGCG
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TCCAGGTCTGACAAGAAAGGGCCAAAGACCATTGCAGAGATGAGGAAGCAGGACCTGGCTAAAGACCGG
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GCTGCACACAGTCTGTGGGACGGGAGAGCCGCTGGACGCCGTGGGCATGGCCGACTGTTGGTCCG
GAGCAAGTGAAGAAGCACTATCGCCGCGCGGTGCTGGCTGTGCACCCGCAAGGCTGCGGGGCAGCCGT
ACGAGCAGCACGCCAAGATGATTTCTATGGAGTGAATGACGCCTGGTCCGAGTTTGAGAACCAGGGCTC
CCGGCCCCCTTTCTGA
    
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5' Read Nucleotide Sequence:

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>OriGene 5' read for mutant NM_005255 unedited
ACCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATCGGCACGAGGCGGAAGATGGTGCA
CCTCCGGGCGCGGCTTCTGAGCTGACCCGACGGCGAGGGAGCGGGAGCCCGAGCCCGACCACTCCGG
CTGCCGCGGGGTGCGGCGCAGCCACCGCATGTGCTGCTGCAGTCGGCGCTCGACTTCTTGGCGGGTCC
AGGCTCCTTGGCGGTGCTTCCGGCCGCGACCAGAGTACTTCGTGGGCGAGCGGTGGAAGTGGGCGTG
CTGCGGCTGCGGGGTGCGGCGGGTCTGCCGAAGGAGGGTTGCATTTGTGTATGAGCTCAGATGTGGG
GAAGTGGCAGAAAGTATGCTTTATGGAGGCTATTATCCAATGGAAAGGAAAGAACCAACCCCTTCTTTCA
GAAGTTTGCTTCTTGAAGGCTTTCCGGCCCCGACATTGTCCATTTTGTGTTGAAACCGTCTTAGGAAAAA
GATTCACACCGGGCGGCTGATTTCTCTTCCAGCTTTGAAAAGGCGAGTGGGTGAATTTAAAAAATG
GAAATCTAGGCCCTTTTCGCACCGTTGAGATATTTTACAGAGTGCSCCTCGCACAGGCCGGAAACCCA
CATCACAGGCCAGGTGAAATGTGTGTACCAGGACTATACTGTGTATTGGGAGCGCAACTGCTACTCGTA
TCTTGACCACGAGCCGTGAGAAGATCCCGATATCCCGTAGAAACAACCTTCTCTTGCCT
    
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Kinase Domain Sequence:	>SC323361 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CCTTGMCATGGGCGGTAGGCKGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCAG AATTTTGTAAACGACTCACTATAGGGCGGCCGAATCGGCACGAGCGGAAGATGGTGACCTCCGGG CCGGCGTTGCTGAGCTGACCCGGACGGCGAGGGAGCGGGAGCCCGAGCCCGACCACTCCGGCTGCCGCG GGTGCGGCGCAGCCACCGCCATGTCGCTGCTGCAGTCGGCGCTC
Restriction Sites:	Please inquire
ACCN:	NM_005255
Insert Size:	4910 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:	<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_005255.1 , NP_005246.1
RefSeq Size:	4331 bp
RefSeq ORF:	3936 bp
Locus ID:	2580
UniProt ID:	O14976
Cytogenetics:	4p16.3
Domains:	pkinase, TyrKc, Dnaj, S_TKc
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary:

In all eukaryotes, the cell cycle is governed by cyclin-dependent protein kinases (CDKs), whose activities are regulated by cyclins and CDK inhibitors in a diverse array of mechanisms that involve the control of phosphorylation and dephosphorylation of Ser, Thr or Tyr residues. Cyclins are molecules that possess a consensus domain called the 'cyclin box.' In mammalian cells, 9 cyclin species have been identified, and they are referred to as cyclins A through I. Cyclin G is a direct transcriptional target of the p53 tumor suppressor gene product and thus functions downstream of p53. GAK is an association partner of cyclin G and CDK5. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2015]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).