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Product datasheet for SC323564

MAK (NM_005906) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAK (NM_005906) Human Untagged Clone
Tag:	Tag Free
Symbol:	MAK
Synonyms:	RP62
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC323564 sequence for NM_005906 edited (data generated by NextGen Sequencing)

ATGAACCGATACACAACCATGAGACAGTTGGGGGACGGCACGTATGGGAGTGTGCTTATG
GGCAAGAGTAATGAATCCGGGGAGCTGGTGGCCATCAAAAGGATGAAGAGAAAGTTCTAT
TCTTGGGATGAATGCATGAACTTGAGAGAAGTTAAGTCTCTGAAGAAACTTAATCATGCC
AATGTTATTAAATTGAAAGAAGTTATCAGAGAAAATGACCATCTTTATTTTATATTTGAA
TATATGAAAGAAAACCTCTATCAATTAATGAAAGACAGAAACAAGTTGTTCCCTGAATCA
GTCATCAGAAATATTATGTATCAAATATTGCAAGGGCTGGCTTTTATCCATAAACATGGC
TTTTTTCATAGGGACATGAAACCAGAAAACTTGCTTTGTATGGGTCCAGAGCTTGTGAAA
ATTGCTGATTTTGGACTTGCAAGAGAATTAAGGTCACAGCCACCATACACTGATTATGTA
TCTACCAGATGGTATCGTGCCCCTGAAGTTTTACTGAGATCTTCAGTTTATAGTTCTCCC
ATTGATGTGTGGGCTGTTGGAAGTATCATGGCTGAACTCTATATGTTAAGGCCACTTTTC
CCAGGGACAAGTGAGGTCGATGAAATCTTTAAAATTTGCCAAGTTTTAGGGACTCCCAAA
AAAAGTGACTGGCCAGAAGGATACCAGCTGGCATCCTCTATGAACTTCCGTTTTCCCCAG
TGTGTTCCTATAAACTTAAAAACTCTTATTCCCAATGCCAGTAATGAAGCTATTCAGCTC
ATGACCGAAATGTTGAATTGGGATCCAAAGAAACGACCGACAGCAAGCCAGGCATTGAAA
CACCCATATTTTCAAGTTGGTCAGGTATTAGGCCCTTCGTCAAATCATCTGGAATCAAAA
CAGTCTTTAAATAAGCAGCTGCAACCATTAGAATCAAAGCCATCTTTAGTTGAGGTAGAG
CCTAAGCCTCTGCCGGATATAATCGATCAGGTTGTTGGACAACCCCAGCCAAAAACTAGC
CAGCAGCCACTGCAGCCCATTCAGCCGCCACAGAACCTGAGCGTCCAGCAACCTCCAAAG
CAACAGAGTCAGGAGAAACCGCCACAAACGCTATTCCCGAGCATCGTCAAAAACATGCCA
ACTAAGCCAAATGGCACACTGAGTCATAAAAGTGGTAGGAGGCGTTGGGGTCAGACTATC
TTCAAGTCTGGAGATAGCTGGGAAGAGTTGGAGGACTATGATTTCGGAGCCTCCCATTCC
AAGAAGCCAAGCATGGGTGTTTTTAAAGAAAAAAGGAAAAAAGATTCTCCATTTCGGCTT
CCAGAGCCAGTACCCTCAGGCTCCAACCACTCGACAGGGGAAAACAAGAGCTTACCTGCT
GTTACTTCCCTAAAATCTGATTCCGAATTGTCAACTGCTCCAACCTCTAAACAGTACTAC
TTGAAACAATCAAGATATCTTCCAGGTGTGAATCCCAAGAAGGTGTCCTTGATAGCCAGT
GGAAAGGAAATAAACCCCCACACTTGGAGCAACCAGTTATTCCCCAAGTCACTGGGACCC
GTTGGGGCAGAACTTGCTTTCAAAAGGAGCAATGCAGGAAATCTTGGAAGTTATGCTACT
TACAATCAGTCAGGATATATTCCTTCCTTTCTCAAAAAAGAAGTGCAGTCAGCTGGCCAG
AGGATCCACTTAGCACCTCTCAATGCAACGGCTTCAGAATATACCTGGAACACAAAAACT
GGTCGGGGGCAGTTTTCAGGACGTACTTATAATCCTACAGCAAAAAACCTAAATATTGTG
AACCGTGCACAGCCCATTCCCTCAGTGCACGGGAGGACAGACTGGGTGGCCAAGTATGGA
GGCCACCGGTAG

Clone variation with respect to NM_005906.4
1830 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_005906 unedited
ACCGCTCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGTAATCCCCAGCGG
GCTGCAGGGCCACCACCCTCTGTCCGACCCAGCCGGAGCCCGACCTGCGAGGCTGGCCGGGCATGTCCCC
TCGGCGCCCTGTGCTACCAGGGCCAATCTCCGCCGGGAGACCGGTCCCTGACGCCGGGTGTTTATAAGAA
TGGAAGTGTTGTTTCCTTGCCCGATTCCTTCATGCTATATCTCATGAACCTCTGTAATCTTGGGGGAGAG
ACTATATTTAATGATGACAAACCTGTCACCAGTGTAGCACCAACAGTGGGGAGGCCAAAACCAAAAAAAA
TTAAGAACCGTTCAATTTATATTCAACAAGGAAGTCTTTTCATCACCAACTTCGGCTGCATTATTTTTCC
GAATAACCCGACCCCAACCAGGAAACAGTTGGGGGGACGGCCCGTTGGGAAGTGCCTTAGGGCCAAGAGT
AAGGATACCGGGGACGGGGGGCACCGGGGGTAGAAAAAAATTTCATTTCTTGGGATGAGTGTGAGACCTG
AGAAATTTATCCTCAAAAAACTACTGCCCAGTGTTATATTTTGAAATTTTCAAAAAGAGCACTCTTTTTA
TTTTAATTTTGAAAAAACCCTTCATTTTTAAGAGAAAACCTTTGCCCGACATCTCCAAATATTTTAAATG
CGGGCGCGGCTATCACAAGCGTTTTAGAGAGACCCAATCTGTTGGTGACAAGTTATACTCGTGTCGTGCG
AAA

Kinase Domain Sequence:	>SC323564 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 CCATGMGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTC AGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGTAATCCCCAGCGGGCTGCA GGGCCACCACCCTCTGTCCGACCCAGCCGGAGCCCGACCTGCGAGGCTGGCCGGGCATGTCCCCTCGGCG CCCTGTGCTACCAGGGCCAATCTCCGCCGGGAGACCGGTCCCTGA
Restriction Sites:	Please inquire
ACCN:	NM_005906
Insert Size:	3200 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_005906.3, NP_005897.1
RefSeq Size:	3830 bp
RefSeq ORF:	1872 bp
Locus ID:	4117
UniProt ID:	P20794
Cytogenetics:	6p24.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary: The product of this gene is a serine/threonine protein kinase related to kinases involved in cell cycle regulation. Studies of the mouse and rat homologs have localized the kinase to the chromosomes during meiosis in spermatogenesis, specifically to the synaptonemal complex that exists while homologous chromosomes are paired. Mutations in this gene have been associated with ciliary defects resulting in retinitis pigmentosa 62. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]
Transcript Variant: This variant (1) encodes isoform 1.