

Product datasheet for **SC323339**

MELK (NM_014791) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MELK (NM_014791) Human Untagged Clone
Tag:	Tag Free
Symbol:	MELK
Synonyms:	HPK38
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323339 sequence for NM_014791 edited (data generated by NextGen Sequencing)

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ATGAAAGATTATGATGAACTTCTCAAATATTATGAATTACATGAAACTATTGGGACAGGT
GGCTTTGCAAAGGTCAAACCTGCCTGCCATATCCTTACTGGAGAGATGGTAGCTATAAAA
ATCATGGATAAAAAACACACTAGGGAGTGATTTGCCCGGATCAAACGGAGATTGAGGCC
TTGAAGAACCTGAGACATCAGCATATATGTCAACTCTACCATGTGCTAGAGACAGCCAAC
AAAATATTCATGGTTCTTGAGTACTGCCCTGGAGGAGAGCTGTTTACTATATAATTTCC
CAGGATCGCTGTGAGAAGAGGAGACCCGGTTGTCTCCGTGAGATAGTATCTGCTGTT
GCTTATGTGCACAGCCAGGGCTATGCTCACAGGGACCTCAAGCCAGAAAATTTGCTGTTT
GATGAATATCATAAAATTAAGCTGATTGACTTTGGTCTCTGTGCAAAACCAAGGTAAC
AAGGATTACCATCTACAGACATGCTGTGGGAGTCTGGCTTATGCAGCACCTGAGTTAATA
CAAGGCAAATCATATCTGGATCAGAGGCAGATGTTTGGAGCATGGGCATACTGTTATAT
GTTCTTATGTGTGGATTTCTACCATTTGATGATGATAATGTAATGGCTTTATAACAAGAAG
ATTATGAGAGGAAAATATGATGTTCCCAAGTGGCTCTCTCCAGTAGCATTCTGCTTCTT
CAACAAATGCTGCAGGTGGACCCAAAGAAACGGATTTCTATGAAAATCTATTGAACCAT
CCCTGGATCATGCAAGATTACAACATATCCTGTTGAGTGGCAAAGCAAGAATCCTTTTATT
CACCTCGATGATGATTGCGTAACAGAACTTTCTGTACATCACAGAAACAACAGGCAAAACA
ATGGAGGATTTAATTTCACTGTGGCAGTATGATCACCTCACGGCTACCTATCTTCTGCTT
CTAGCCAAGAAGGCTCGGGGAAAACAGTTCGTTAAGGCTTTCTTTCTCTCTGTGGA
CAAGCCAGTGCTACCCCATTCACAGACATCAAGTCAAATAATTGGAGTCTGGAAGATGTG
ACCGCAAGTGATAAAAATATGTGGCGGGATTAATAGACTATGATTGGTGTGAAGATGAT
TTATCAACAGGTGCTGCTACTCCCCGAACATCACAGTTTACCAAGTACTGGACAGAATCA
AATGGGGTGGAAATCTAAATCATTAACTCCAGCCTTATGCAGAACACCTGCAAATAAATTA
AAGAACAAGAAAATGTATATACTCCTAAGTCTGCTGTAAGAATGAAGAGTACTTTATG
TTTCCTGAGCCAAAGACTCCAGTTAATAAGAACCAGCATAAGAGAGAAATACTCACTACG
CCAAATCGTTACACTACACCCTCAAAGCTAGAAACAGTGCCTGAAAGAACTCCAATT
AAAATACCAGTAAATTCACAGGAACAGACAAGTTAATGACAGGTGTCATTAGCCCTGAG
AGGCGGTGCCGCTCAGTGAATTGGATCTCAACCAAGCACATATGGAGGAGACTCCAAAA
AGAAAGGGAGCCAAAGTGTGGGAGCCTTGAAGGGGGTTGGATAAGGTTATCACTGTG
CTCACCAGGAGCAAAAGGAAGGGTTCTGCCAGAGACGGGCCAGAAGACTAAAGTTCAC
TATAATGTGACTACAAC TAGATTAGTGAATCCAGATCAACTGTTGAATGAAATAATGTCT
ATTCTTCAAAGAAGCATGTTGACTTTGTACAAAAGGGTTATACACTGAAGTGTCAAACA
CAGTCAGATTTTGGGAAAGTGACAATGCAATTTGAATTAGAAGTGTGCCAGCTTCAAAAA
CCCGATGTGGTGGTATCAGGAGGCAGCGGCTTAAGGGCGATGCCTGGGTTTACAAAAGA
TTAGTGAAGACATCCTATCTAGCTGCAAGGTATAA
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Clone variation with respect to NM_014791.2

5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_014791 unedited CCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGCGAGGTCTATATAAGCAGAGCTCGTTTAGTGAAC CGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGCCCGCTCTCTCAGG ACAGCAGGCCCTGTCTTCTGTGCGGGCCGCTCAGCCGTGCCCTCCGCCCTCAGGTCAGTTCTCCCG CCTGCCCGCCGAGTCGAGTTGATGGCTGGGGTCTGGGCTGTGCGGGGCGCAGCGGCCAAACCCAGTT TGCTCTGGCTCTCGGGAGACTGGAGGATTCATCGGAGCCCCGCGCTTACCAGCCCTGTTCCCTTGAT AAGATATTTGACCTTTCCGACCCGCGGTTTTCTCTCCAATCTCGCTCCGTTGCCAGGCTGGAGTGCAG TGGCGTGATCTCGGCTCACTGCAACCTCTGCCTCCTGCCTCAGCCTCCAAGTTCTTTTCTAATCCAA ATAAACTTGCAAGAGGACTATGAAAGATTATGATGAACTTCTCAAATATTATGAATTACATGAACTATT GGGACAGGTGGCTTTGCAAAGGTCAAACCTGCCTGCCATATCCTTACTGGAGAGATGGTAGCTATAATGA TCATGGATAAAACACACTAGGGAGTGATTTGCCCGGATCAAACGGAGATTGAGCCTTGAAGACCTGA GACATCAGCATATATGTCAACTTACCATGTGCTAGAGACAGCCCAACAAAATATTCATGGTCTGAGTAC TGCCCTGAGGAAGCTGTTTGACTTAATATCCAGATCGCCTGTCAGAAGAAGGAGACCCGGTTGCTCG TCAGAATGTATTCTGCTGTGCTTATTGTGCACAGCAGCTATGCTACAGACCTCAGCAAAATTGCTGTTTT GATGAATACTAAATAAGCTGATTAGACTTTGTCTCCTGTGTGCAAAC
Kinase Domain Sequence:	>SC323339 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 AGATGMGCATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA GAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGCCCGCTCTCTCAGGACAGC AGGCCCTGTCTTCTGTGCGGGCCGCTCAGCCGTGCCCTCCGCCCTCAGGTCAGTTCTCCCGCTGC CCGCCGAGTCGAGTTGATGGCTGGGGTCTGGGCTGTGCGGGG
Restriction Sites:	Please inquire
ACCN:	NM_014791
Insert Size:	2700 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_014791.2 , NP_055606.1

RefSeq Size:	2501 bp
RefSeq ORF:	1956 bp
Locus ID:	9833
UniProt ID:	Q14680
Cytogenetics:	9p13.2
Domains:	pkinese, TyrKc, KA1, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	<p>Serine/threonine-protein kinase involved in various processes such as cell cycle regulation, self-renewal of stem cells, apoptosis and splicing regulation. Has a broad substrate specificity; phosphorylates BCL2L14, CDC25B, MAP3K5/ASK1 and ZNF622. Acts as an activator of apoptosis by phosphorylating and activating MAP3K5/ASK1. Acts as a regulator of cell cycle, notably by mediating phosphorylation of CDC25B, promoting localization of CDC25B to the centrosome and the spindle poles during mitosis. Plays a key role in cell proliferation and carcinogenesis. Required for proliferation of embryonic and postnatal multipotent neural progenitors. Phosphorylates and inhibits BCL2L14, possibly leading to affect mammary carcinogenesis by mediating inhibition of the pro-apoptotic function of BCL2L14. Also involved in the inhibition of spliceosome assembly during mitosis by phosphorylating ZNF622, thereby contributing to its redirection to the nucleus. May also play a role in primitive hematopoiesis.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (1).</p>