

Product datasheet for **MR209713**

Melk (NM_010790) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Melk (NM_010790) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Melk
Synonyms:	AI327312; mKIAA0175; MPK38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR209713 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGAAAGATTATGACGAACCTCTAAATACTATGAACTATATGAAACGATTGGGACAGGTGGCTTTGCAA
AGGTCAAACCTGGCTGCCATGTCCTCACTGGAGAGATGGTAGCTATAAAAATCATGGATAAGAATGCGCT
AGGGAGTGATTTGCCCGAGTCAAACTGAGATCGATGCGCTGAAGAGTCTGAGACATCAGCACATATGT
CAGCTCTACCATGTGCTGGAGACAAAGAACAAAATATTTCATGGTTCTGGAGTACTGTCCAGGAGGAGAGC
TGTTTGACTACATAATCTCCAGGATCGCTGTGGAAGAGGAGACCCGGGTCGTCTCCGTGAGATACT
GTCTGCAGTTGCGTATGTCCACAGCCAGGGCTATGCCACAGGGACCTCAAACCAGAAAATTTATTATTT
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GATGATAATGTATGGCTTTGTACAAGAAGATAATGAGAGGGAAATACGAAGTTCCTAAGTGGCTCTCTC
CCAGTAGCATTCTGCTTCTCCAGCAGATGTTGCAGGTGGACCCAAAGAAACGGATTTCTATGAGAAATCT
CCTGAACCATCCCTGGGTGATGCAAGATTACAGCTGTCCCGTGGAGTGGCAAAGCAAGACTCCTTTGACT
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GAAGCCGGCTCGTCTACAGCTCCTGTCTTCTTGTGGAACCCAGCACCCTCCAAAGTCAAAGAAT
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CCCAAGTCTTCTGTGAAGAATGAAGAGCAGTTTGTATTTCTGAGCCGAAGATTCAGTTAGTAAGAACC
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GAGAGAAGCCCGGTTAGAACACCAGGGAATCCGCAGGAGCAGACACACTAACGACAGGTGTCATTAGC
CCCGAGAGGAGGTGCCGTTCAATGGACGTGGATCTCAACCAGGCACACATGGAGGATACCCCGAAAAGA
AAGGAACCAATGTGTTTGGGAGCCTTGAGAGAGGACTGGATAAGGTTCTCACTGCGCTCACAAAGGAACA
GAAGAAGGGCTCTGCCAGAGATGGACCAAGAAAGCGAAAGCTGCACTACAATGTGACTACAACCTCGCCTG
GTGAACCCCGACCAGCTCCTGAGCGAAATCATGGCTATTCTTCCAAAGAAGAACGTGGACTTCGTACAGA
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GTGCCAGCTGCAGAGACCTGACGTGGTAGGCATCCGGAGACAGCGGCTGAAGGGTATGCCTGGGTTTAC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR209713 protein sequence
Red=Cloning site Green=Tags(s)

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MKDYDELLKYYELYETIGTGGFAKVKLACHVLTGEMVAIKIMDKNALGSDLPRVKTEIDALKSLRHQHIC
QLYHVLETKNKIFMVLEYCPGGELFDYIISQDRLSEETRNVFRQILSAVAYVHSQGYAHRDLKPENLLF
DENHKLKLIIDFGLCAKPKGNKDYHLQTCGSLAYAAPELIQGKSYLGSEADVWSMGILLVYLMCGFLPFD
DDNVMALYKKIMRGKYEVPKWLSPSSILLQQLQVDPKKRISMRNLLNHPWVMQDYSCPVEWQSKTPLT
HLDEDCVTELSVHHRSSRQTMEDLISSWRYDHLTATYLLLLAKKARGKPARLQLLSFSCGTASTTPKSKN
LSEEDMSTSDNCVAGLIDYELCEDKLLAPKTPQVTKHLAESNHAASKSPAGVRRVAVANKLMDKENVCT
PKSSVKNEEQVFSEPKIPVSKNQYKREIPASPTRFPTPAKARAQCLREAPVRTPGNSAGADTLTTGVIS
PERRCRSMVDVNLQAHMEDTPKKKGTNVFGLERGLDKVLTALTRNKKKGSARDGPRKRKLHYNVTTRRL
VNPDQLLSEIMAILPKKNVDFVQKGYTLKCQTQSDFGKVTMQFELEVCQLQRPDVGIRQRKLGDAWVY
KRLVEDILSGCKM
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_010790

ORF Size: 1932 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_010790.1](#), [NM_010790.2](#), [NP_034920.2](#)

RefSeq Size: 2914 bp

RefSeq ORF: 1932 bp

Locus ID: 17279

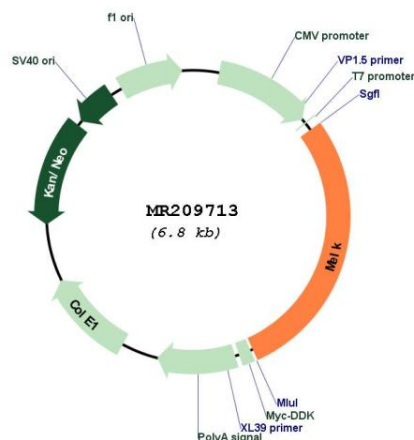
UniProt ID: [Q61846](#)

Cytogenetics: 4 23.46 cM

MW: 72.8 kDa

Gene Summary: 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. Required for proliferation of embryonic and postnatal multipotent neural progenitors. Phosphorylates and inhibits 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]

Product images:



Circular map for MR209713