

Product datasheet for **MG209713**

Melk (NM_010790) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Melk (NM_010790) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Melk
Synonyms:	AI327312; mKIAA0175; MPK38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209713 representing NM_010790
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAAAGATTATGACGAACCTCTAAATACTATGAACTATATGAAACGATTGGGACAGGTGGCTTTGCAA
 AGGTCAAACCTGGCTGCCATGTCCTCACTGGAGAGATGGTAGCTATAAAAATCATGGATAAGAATGCGCT
 AGGGAGTGATTTGCCCGAGTCAAACTGAGATCGATGCGCTGAAGAGTCTGAGACATCAGCACATATGT
 CAGCTCTACCATGTGCTGGAGACAAAGAACAAAATATTTCATGGTTCTGGAGTACTGTCCAGGAGGAGAGC
 TGTTTGACTACATAATCTCCAGGATCGCTGTGGAAGAGGAGACCCGGGTCGCTTCCGTCAGATACT
 GTCTGCAGTTGCGTATGTCCACAGCCAGGGCTATGCCACAGGGACCTCAAACCAGAAAATTTATTATTT
 GATGAAAATCATAAGCTAAAGCTGATTGACTTTGGTCTTGTGCAAAACCAAGGGCAACAAGGACTACC
 ATCTGCAGACGTGCTGTGGGAGCCTTGCTTATGCAGCTCCTGAATAACAAGGGAAGTGTACCTTGG
 ATCAGAGGCAGATGTTTGGAGCATGGGCATCCTCTGTATGTGCTCATGTGTGGATTTCTACCATTTGAT
 GATGATAATGTATGGCTTTGTACAAGAAGATAATGAGAGGGAAATACGAAGTTCCTAAGTGGCTCTCTC
 CCAGTAGCATTCTGCTTCTCCAGCAGATGTTGCAGGTGGACCCAAAGAAACGGATTTCTATGAGAAATCT
 CCTGAACCATCCCTGGGTGATGCAAGATTACAGCTGTCCCGTGGAGTGGCAAAGCAAGACTCCTTTGACT
 CACCTCGATGAGGATTGCGTGACAGAGCTTTCTGTACATCACCGCAGCAGCAGGCAGACAATGGAGGATT
 TAATTCGTCGTGGCGGTACGATCACCTCACAGCCACCTACCTTCTGCTTCTAGCCAAGAAGGCCCGGGG
 GAAGCCGGCTCGTCTACAGCTCCTGTCTTCTTGTGGAACCCAGCACCCTCCAAAGTCAAAGAAT
 CTGAGCCTGGAAGATGAGCACAAGTATGATAACTGTGTGGCTGGATTGATAGACTATGAATTTGTGTG
 AAGATAAATTATTAGCTCCCAAGACGCCACAGGTTACCAACACTTGGCAGAATCAAATCACGCAGCATC
 TAAATCACAGCCAGCCAGGGTACGCAGAGCAGTGGCAAATAAATTAATGGACAAAGAAAATGTGTGCATC
 CCCAAGTCTTCTGTGAAGAATGAAGAGCAGTTTGTATTTCTGAGCCGAAGATTCAGTTAGTAAGAACC
 AGTATAAGAGAGAAAATACCCGCCTCACCAACCCGTTTCCCAACACCTGCAAAAAGCTAGAGCCAGTGCCT
 GAGAGAAGCCCCGGTTAGAACACCAGGGAATCCGCAGGAGCAGACACACTAACGACAGGTGTCATTAGC
 CCCGAGAGGAGGTGCCGTTCAATGGACGTGGATCTCAACCAGGCACACATGGAGGATACCCCGAAAAAGA
 AAGGAACCAATGTGTTTGGGAGCCTTGGAGAGGACTGGATAAGGTTCTCACTGCGCTCACAAAGGAACA
 GAAGAAGGGCTCTGCCAGAGATGGACCAAGAAAGCGAAAGCTGCACTACAATGTGACTACAACCTCGCTG
 GTGAACCCGACCAGCTCCTGAGCGAAATCATGGCTATTCTTCCAAAGAAGAAGTGGACTTCGTACAGA
 AAGGTTACACTCTAAAGTGTCAAACGCAGTCTGATTTTGGCAAAGTGACAATGCAGTTTGAAGTGGAAAT
 GTGCCAGCTGCAGAGACCTGACGTGGTAGGCATCCGGAGACAGCGGCTGAAGGGTGTGCTGGGTTTAC
 AAGAGATTAGTGAAGATATCTTGTCTGGCTGCAAGATG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG209713 representing NM_010790
 Red=Cloning site Green=Tags(s)

MKDYDELLKYYELYETIGTGGFAKVKLACHVLTGEMVAIKIMDKNALGSDLPRVKTEIDALKSLRHQHIC
 QLYHVLETKNKIFMVLEYCPGGELFDYIISQDRLSEETRVRVFRQILSAVAYVHSQGYAHRDLKPENLLF
 DENHKLKLIIDFGLCAKPKGNKDYHLQTCGSLAYAAPELIQGKSYLGSEADVWSMGILLVYLMCGFLPFD
 DDNVMALYKKIMRGKYEVPKWLSPSSILLQQLQVDPKKRISMRNLLNHPWVMQDYSCEVWQSKTPLT
 HLDEDCVTELSVHHRSSRQTMEDLISSWRYDHLTATYLLLLAKKARGKPARLQLLSFSCGTASTTPKSKN
 LSLLEDMSDDNCVAGLIDYELCEDKLLAPKTPQVTKHLAESNHAASKSPAPGVRRAVANLMDKENVCT
 PKSSVKNEEQVFVSEPKIPVSKNQYKREIPASPTRFPTPAKARAQCLREAPVVRTPGNSAGADTLTTGVIS
 PERRCRSMVDVNLQAHMEDTPKKKGTNVFGLSERGLDKVLTALTRNKKKGSARDGPRKRKLHYNVTTRRL
 VNPDQLLSEIMAILPKKNVDFVQKGYTLKQTSDFGKVTMQFELEVCQLQRPDVGIRQRKLGDAWVY
 KRLVEDILSGCKM

TRTRPLE – GFP Tag – V

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:	<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_010790.2 , NP_034920.2
RefSeq Size:	2914 bp
RefSeq ORF:	1932 bp
Locus ID:	17279
UniProt ID:	Q61846
Cytogenetics:	4 23.46 cM
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. 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]</p>