

## Product datasheet for **RG204245**

### MELK (NM\_014791) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MELK (NM_014791) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MELK
Synonyms:	HPK38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204245 representing NM\_014791  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAAGATTATGATGAACCTTCTCAAATATTATGAATTACATGAAACTATTGGGACAGGTGGCTTTGCAA  
 AGGTCAAACCTTGCTGCCATATCCTTACTGGAGAGATGGTAGCTATAAAAATCATGGATAAAAACACACT  
 AGGGAGTGATTTGCCCGGATCAAAACGGAGATTGAGGCCTTGAAGAACCTGAGACATCAGCATATATGT  
 CAACTCTACCATGTGCTAGAGACAGCCAACAAAATATTTCATGGTCTTGAGTACTGCCCTGGAGGAGAGC  
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 ATCTGCTGTTGCTTATGTGCACAGCCAGGGCTATGCTCACAGGGACCTCAAGCCAGAAAATTTGCTGTTT  
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 GACAATGCAATTTGAATTAGAAGTGTGCCAGCTTCAAAAACCCGATGTGGTGGGTATCAGGAGGCAGCGG  
 CTTAAGGGCGATGCCTGGGTTTACAAAAGATTAGTGAAGACATCCTATCTAGCTGCAAGGTA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG204245 representing NM\_014791  
 Red=Cloning site Green=Tags(s)

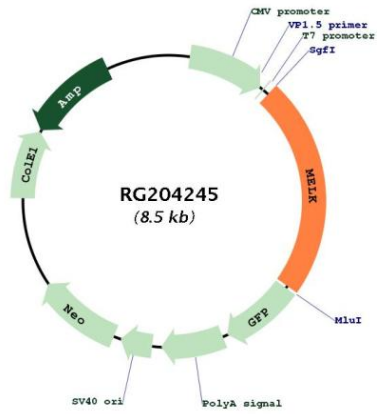
MKDYDELLKYYELHETIGTGGFAKVKLACHILTGEMVAIKIMDKNTLGSDDLPRIKTEIEALKNLRHQHIC  
 QLYHVLETANKIFMVLEYCPGGELFDYIISQDRLSEETRVRVFRQIVSAVAVVHSQGYAHRDLKPENLLF  
 DEYHKLKLIIDFGLCAKPKGNKDYHLQTCGSLAYAAPELIQGKSYLGSEADVWSMGILLVYLMCGFLPFD  
 DDNVMALYKKIMRGKYDVPKWLSPSSILLQQLQVDPKKRISMKNLLNHPWIMQDYNYPVEWQSKNPF I  
 HLDDDCVTELSVHHRNRRQTMEDLISLWQYDHLTATYLLLLAKKARGKPVRLRLSSFSCGQASATPF TDI  
 KSNNWSLEDVTASDKNYVAGLIDYDWCEDDLSTGAATPRTSQFTKYWTESNGVESKSLTPALCRTPANKL  
 KKNENVYTPKSAVKNEEYFMFPEKTPVNKNQHKREIL TTPNRYTTPSKARNQCLKETPIKIPVNSTGTD  
 KLMTGVISPERRCRSVELDLNQAHEETPKRKGAKVFGSLERGLDKVITVLTRSKRKGSAARDGPRRLKHL  
 YNVTTTRLVNPQQLNEIMSILPKKHVDFVQKGYTLKQQTQSDFGKVTMQFELEVQCQLQKPDVVGIRRQR  
 LKGDWVYKRLVEDILSSCKV

**TRTRPLE** – GFP Tag – V



<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_014791.2</a> , <a href="#">NP_055606.1</a>
<b>RefSeq Size:</b>	2501 bp
<b>RefSeq ORF:</b>	1956 bp
<b>Locus ID:</b>	9833
<b>UniProt ID:</b>	<a href="#">Q14680</a>
<b>Cytogenetics:</b>	9p13.2
<b>Domains:</b>	pkinase, TyrKc, KA1, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Gene Summary:</b>	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]

Product images:



Circular map for RG204245