

## Product datasheet for **SC330493**

### MELK (NM\_001256690) Human Untagged Clone

#### Product data:

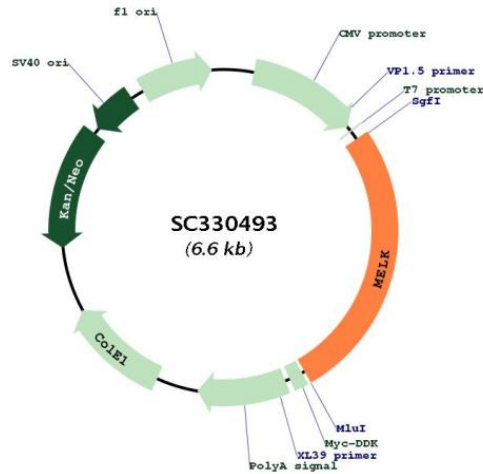
**Product Type:** Expression Plasmids  
**Product Name:** MELK (NM\_001256690) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** MELK  
**Synonyms:** HPK38  
**Vector:** pCMV6-Entry (PS100001)  
**Fully Sequenced ORF:** >SC330493 representing NM\_001256690.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
ATGATGAACTTCTCAAATATTATGAATTACATGAACTATTGGGACAGTACTGCCCTGGAGGAGAGCTG
TTTGACTATATAATTTCCAGGATCGCCTGTCAGAAGAGGAGACCCGGTGTCTTCCGTCAGATAGTA
TCTGCTGTTGCTTATGTGCACAGCCAGGGCTATGCTCACAGGGACCTCAAGCCAGAAAATTTGCTGTTT
GATGAATATCATAAATTAAGCTGATTGACTTTGGTCTCTGTGCAAAACCAAGGTAACAAGGATTAC
CATCTACAGACATGCTGTGGGAGTCTGGCTTATGCAGCACCTGAGTTAACAAGGCAAAATCATATCTT
GGATCAGAGGCAGATGTTTGGAGCATGGGCATACTGTTATATGTTCTTATGTGTGGATTTCTACCATTT
GATGATGATAATGTAATGGCTTTATACAAGAAGATTATGAGAGGAAAATATGATGTTCCCAAGTGGCTC
TCTCCCAGTAGCATTCTGCTTCTCAACAAATGCTGCAGGTGGACCCAAAGAAACGGATTTCTATGAAA
AATCTATTGAACCATCCCTGGATCATGCAAGATTACAACATCCTGTTGAGTGGCAAAGCAAGAATCCT
TTTATTACCTCGATGATGATTGCGTAACAGAACCTTTCTGTACATCACAGAAAACAACAGGCAAAACATG
GAGGATTAATTTCACTGTGGCAGTATGATCACCTCACGGCTACCTATCTTCTGCTTCTAGCCAAGAAG
GCTCGGGGAAAACCAGTTCGTTAAGGCTTTCTTTCTCTCTGTGGACAAGCCAGTGTACCCCATTC
ACAGACATCAAGTCAAATAATTGGAGTCTGGAAGATGTGACCCGAAGTGATAAAAATATGTGGCGGA
TTAATAGACTATGATTGGTGTGAAGATGATTTATCAACAGGTGCTGCTACTCCCCGAACATCACAGTTT
ACCAAGTACTGGACAGAATCAAATGGGGTGAATCTAAATCATTAACTCCAGCCTTATGCAGAACACCT
GCAAAATAAATTAAGAACAAGAAAATGTATATACTCCTAAGTCTGCTGTAAAGAATGAAGAGTACTTT
ATGTTTCTGAGCCAAAGACTCCAGTTAATAAGAACCAGCATAAGAGAGAAATACTCACTACGCCAAAT
CGTTACACTACCCCTCAAAGCTAGAAACAGTGCCTGAAAGAAACTCCAATTAATAATACCAGTAAAT
TCAACAGGAACAGACAAGTTAATGACAGGTGTCATTAGCCCTGAGAGGCGGTGCCCTCAGTGAATTG
GATCTCAACCAAGCACATATGGAGGAGACTCCAAAAGAAAGGGAGCCAAAGTGTGGGAGCCTTGAA
AGGGGTTGGATAAGGTTATCACTGTGCTCACCAGGAGCAAAGGAAAGGTTCTGCCAGAGACGGGCC
AGAAGACTAAAGTTCATAACGTGACTACAACACTAGATTAGTGAATCCAGATCACTGTTGAATGAA
ATAATGTCTATTCTTCAAAGAAGCATGTTGACTTTGTACAAAAGGGTTATACACTGAAGTGTCAAACA
CAGTCAGATTTTGGGAAAGTGACAATGCAATTTGAATTAGAAGTGTGCCAGCTTCAAACCCGATGTG
GTGGGTATCAGGAGGCAGCGGCTTAAGGGCGATGCCTGGGTTTACAAAAGATTAGTGAAGACATCCTA
TCTAGCTGCAAGGTATAA
```

**Restriction Sites:** SgfI-MluI



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**Plasmid Map:**


**ACCN:** NM\_001256690

**Insert Size:** 1743 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).

**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\\_001256690.1](#)

**RefSeq Size:** 2283 bp

**RefSeq ORF:** 1743 bp

**Locus ID:** 9833

**UniProt ID:** [Q14680](#)

**Cytogenetics:** 9p13.2

**Protein Families:** Druggable Genome, Protein Kinase

**MW:** 66.5 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 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]

Transcript Variant: This variant (6) initiates translation at an alternate start codon and lacks two consecutive exons in the 5' coding region, but maintains the reading frame, compared to variant 1. The encoded isoform (6) is shorter and has a distinct N-terminus, compared to isoform 1.