

## Product datasheet for **TL320621**

### MELK Human shRNA Plasmid Kit (Locus ID 9833)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	MELK Human shRNA Plasmid Kit (Locus ID 9833)
Locus ID:	9833
Synonyms:	HPK38
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	MELK - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 9833). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001256685</a> , <a href="#">NM_001256687</a> , <a href="#">NM_001256688</a> , <a href="#">NM_001256689</a> , <a href="#">NM_001256690</a> , <a href="#">NM_001256691</a> , <a href="#">NM_001256692</a> , <a href="#">NM_001256693</a> , <a href="#">NM_014791</a> , <a href="#">NR_046337</a> , <a href="#">NM_014791.1</a> , <a href="#">NM_014791.2</a> , <a href="#">NM_014791.3</a> , <a href="#">NM_001256693.1</a> , <a href="#">NM_001256692.1</a> , <a href="#">NM_001256691.1</a> , <a href="#">NM_001256688.1</a> , <a href="#">NM_001256690.1</a> , <a href="#">NM_001256687.1</a> , <a href="#">NM_001256685.1</a> , <a href="#">NM_001256689.1</a> , <a href="#">BC014039</a> , <a href="#">BC014039.2</a>
UniProt ID:	<a href="#">Q14680</a>
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]



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- shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- Performance Guaranteed:** OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.
- For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).