

## Product datasheet for **TL313888**

### CKMT2 Human shRNA Plasmid Kit (Locus ID 1160)

#### Product data:

<b>Product Type:</b>	shRNA Plasmids
<b>Locus ID:</b>	1160
<b>Synonyms:</b>	SMTCK
<b>Vector:</b>	pGFP-C-shLenti (TR30023)
<b>E. coli Selection:</b>	Chloramphenicol (34 ug/ml)
<b>Mammalian Cell Selection:</b>	Puromycin
<b>Format:</b>	Lentiviral plasmids
<b>Components:</b>	CKMT2 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector (Gene ID = 1160). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
<b>RefSeq:</b>	<a href="#">NM_001099735</a> , <a href="#">NM_001099736</a> , <a href="#">NM_001825</a> , <a href="#">NM_001825.1</a> , <a href="#">NM_001825.2</a> , <a href="#">NM_001099736.1</a> , <a href="#">NM_001099735.1</a> , <a href="#">BC029140</a> , <a href="#">BC029140.1</a> , <a href="#">NM_001099735.2</a>
<b>UniProt ID:</b>	<a href="#">P17540</a>
<b>Summary:</b>	Mitochondrial creatine kinase (MtCK) is responsible for the transfer of high energy phosphate from mitochondria to the cytosolic carrier, creatine. It belongs to the creatine kinase isoenzyme family. It exists as two isoenzymes, sarcomeric MtCK and ubiquitous MtCK, encoded by separate genes. Mitochondrial creatine kinase occurs in two different oligomeric forms: dimers and octamers, in contrast to the exclusively dimeric cytosolic creatine kinase isoenzymes. Sarcomeric mitochondrial creatine kinase has 80% homology with the coding exons of ubiquitous mitochondrial creatine kinase. This gene contains sequences homologous to several motifs that are shared among some nuclear genes encoding mitochondrial proteins and thus may be essential for the coordinated activation of these genes during mitochondrial biogenesis. Three transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]



**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).