

Product datasheet for **SC301983**

CKMT1A (NM_001015001) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | CKMT1A (NM_001015001) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | CKMT1A |
| Synonyms: | CKMT1; mia-CK; U-MtCK |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Fully Sequenced ORF: | >SC301983 representing NM_001015001. Blue=Insert sequence Red=Cloning site Green=Tag(s) |

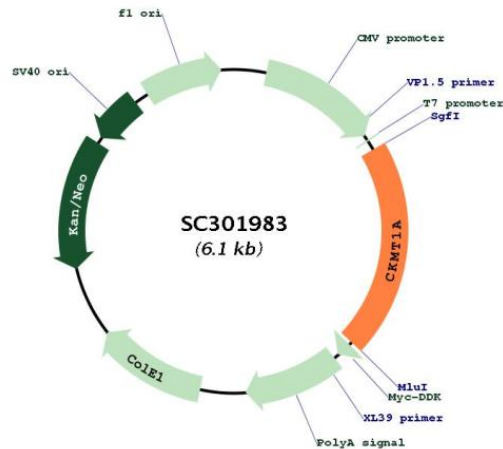
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GGGTCTCTAGCCGCTGGGTTTCTGCTCCGACCGGAACCTGTACGAGCTGCCAGTGAACGACGGAGGCTG
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GCAGTCTATGCACGGCTCTGCGACAAGACCACACCCACTGGTTGGACGCTAGATCAGTGTATCCAGACT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_001015001

Insert Size: 1254 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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_001015001.2](#)

RefSeq Size: 1879 bp

RefSeq ORF: 1254 bp

Locus ID: 548596

| | |
|--------------------------|---|
| UniProt ID: | <u>P12532</u> |
| Cytogenetics: | 15q15.3 |
| Protein Families: | Druggable Genome |
| Protein Pathways: | Arginine and proline metabolism, Metabolic pathways |
| MW: | 47 kDa |
| Gene Summary: | <p>Mitochondrial creatine (MtCK) kinase 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. Many malignant cancers with poor prognosis have shown overexpression of ubiquitous mitochondrial creatine kinase; this may be related to high energy turnover and failure to eliminate cancer cells via apoptosis. Ubiquitous mitochondrial creatine kinase has 80% homology with the coding exons of sarcomeric mitochondrial creatine kinase. Two genes located near each other on chromosome 15 have been identified which encode identical mitochondrial creatine kinase proteins. [provided by RefSeq, Jul 2008]</p> |