

## **Product datasheet for TR311542**

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MCM2 Human shRNA Plasmid Kit (Locus ID 4171)

## **Product data:**

**Product Type:** shRNA Plasmids

**Product Name:** MCM2 Human shRNA Plasmid Kit (Locus ID 4171)

Locus ID: 4171

Synonyms: BM28; CCNL1; cdc19; CDCL1; D3S3194; DFNA70; MITOTIN

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: MCM2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

4171). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

**RefSeq:** NM 004526, NR 073375, NM 004526.2, NM 004526.3, BC014272, BC014272.2, BC000300,

BC006165, BC007670, BC007938, BC017258, BC017490, BC030131, BM153020, NM 004526.4

UniProt ID: P49736

Summary: The protein encoded by this gene is one of the highly conserved mini-chromosome

maintenance proteins (MCM) that are involved in the initiation of eukaryotic genome

replication. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex (pre\_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. This protein forms a complex with MCM4, 6, and 7, and has been shown to regulate the helicase activity of the complex. This protein is phosphorylated, and thus regulated by, protein kinases CDC2 and CDC7. Multiple alternatively spliced transcript variants have been found, but the full-length

nature of some variants has not been defined. [provided by RefSeq, Oct 2012]

**shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To

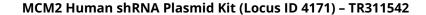
be certain that your variant of interest is targeted, please contact <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our custom shRNA service.



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## 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).