

Product datasheet for **TR510775**

Ccnd3 Mouse shRNA Plasmid (Locus ID 12445)

Product data:

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| Product Type: | shRNA Plasmids |
| Product Name: | Ccnd3 Mouse shRNA Plasmid (Locus ID 12445) |
| Locus ID: | 12445 |
| Synonyms: | 9230106B05Rik; AA682053; AL024085; AW146355; C78795 |
| Vector: | pRS (TR20003) |
| E. coli Selection: | Ampicillin |
| Mammalian Cell Selection: | Puromycin |
| Format: | Retroviral plasmids |
| Components: | Ccnd3 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 12445). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free. |
| RefSeq: | BC004076 , BC005605 , NM_001081635 , NM_001081636 , NM_007632 , NM_007632.1 , NM_007632.2 , NM_001081635.1 , NM_001081636.1 |
| UniProt ID: | P30282 |
| Summary: | Regulatory component of the cyclin D3-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity. Component of the ternary complex, cyclin D3/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.[UniProtKB/Swiss-Prot Function] |
| 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 . 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).