

Product datasheet for **TR308807**

Thymidine Kinase 1 (TK1) Human shRNA Plasmid Kit (Locus ID 7083)

Product data:

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| Product Type: | shRNA Plasmids |
| Product Name: | Thymidine Kinase 1 (TK1) Human shRNA Plasmid Kit (Locus ID 7083) |
| Locus ID: | 7083 |
| Synonyms: | TK2 |
| Vector: | pRS (TR20003) |
| E. coli Selection: | Ampicillin |
| Mammalian Cell Selection: | Puromycin |
| Format: | Retroviral plasmids |
| Components: | TK1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 7083). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free. |
| RefSeq: | NM_003258 , NM_001346663 , NM_003258.1 , NM_003258.2 , NM_003258.3 , NM_003258.4 , BC006484 , BC007872 , BC007986 , NM_001363848 , NM_003258.5 |
| UniProt ID: | P04183 |
| Summary: | The protein encoded by this gene is a cytosolic enzyme that catalyzes the addition of a gamma-phosphate group to thymidine. This creates dTMP and is the first step in the biosynthesis of dTTP, which is one component required for DNA replication. The encoded protein, whose levels fluctuate depending on the cell cycle stage, can act as a low activity dimer or a high activity tetramer. High levels of this protein have been used as a biomarker for diagnosing and categorizing many types of cancers. [provided by RefSeq, Oct 2016] |
| 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).