

Product datasheet for **TR310194**

Peroxiredoxin 2 (PRDX2) Human shRNA Plasmid Kit (Locus ID 7001)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Peroxiredoxin 2 (PRDX2) Human shRNA Plasmid Kit (Locus ID 7001)
Locus ID:	7001
Synonyms:	HEL-S-2a; NKEF-B; NKEFB; PRP; PRX2; PRXII; PTX1; TDPX1; TPX1; TSA
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	PRDX2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 7001). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_005809 , NM_181737 , NM_181738 , NM_005809.1 , NM_005809.2 , NM_005809.3 , NM_005809.4 , NM_005809.5 , NM_181738.1 , NM_181737.1 , BC039428 , BC039428.1 , BC064138 , BC000452 , BC003022 , NM_005809.6
UniProt ID:	P32119
Summary:	This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein plays an antioxidant protective role in cells, and it may contribute to the antiviral activity of CD8(+) T-cells. The crystal structure of this protein has been resolved to 2.7 angstroms. This protein prevents hemolytic anemia from oxidative stress by stabilizing hemoglobin, thus making this gene a therapeutic target for patients with hemolytic anemia. This protein may have a proliferative effect and play a role in cancer development or progression. Related pseudogenes have been identified on chromosomes 5, 6, 10 and 13. [provided by RefSeq, Mar 2013]
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).