

## Product datasheet for **TR313601**

### **CYP27B1 Human shRNA Plasmid Kit (Locus ID 1594)**

#### **Product data:**

Product Type:	shRNA Plasmids
Product Name:	CYP27B1 Human shRNA Plasmid Kit (Locus ID 1594)
Locus ID:	1594
Synonyms:	CP2B; CYP1; CYP1alpha; CYP27B; P450c1; PDDR; VDD1; VDDR; VDDRI; VDR
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	CYP27B1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 1594). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_000785</a> , <a href="#">NM_000785.1</a> , <a href="#">NM_000785.2</a> , <a href="#">NM_000785.3</a> , <a href="#">BC001776</a> , <a href="#">BC020267</a> , <a href="#">BC136386</a> , <a href="#">NM_000785.4</a>
UniProt ID:	<a href="#">O15528</a>
Summary:	This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. The protein encoded by this gene localizes to the inner mitochondrial membrane where it hydroxylates 25-hydroxyvitamin D3 at the 1alpha position. This reaction synthesizes 1alpha,25-dihydroxyvitamin D3, the active form of vitamin D3, which binds to the vitamin D receptor and regulates calcium metabolism. Thus this enzyme regulates the level of biologically active vitamin D and plays an important role in calcium homeostasis. Mutations in this gene can result in vitamin D-dependent rickets type I. [provided by RefSeq, Jul 2008]
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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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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](mailto: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).