

Product datasheet for **TR500489**

Cyp4a12b Mouse shRNA Plasmid (Locus ID 13118)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Cyp4a12b Mouse shRNA Plasmid (Locus ID 13118)
Locus ID:	13118
Synonyms:	BC060945; Cyp4a12
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Cyp4a12b - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 13118). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC060945 , NM_172306 , NM_172306.1 , NM_172306.2
UniProt ID:	A2A974
Summary:	A cytochrome P450 monooxygenase involved in the metabolism of fatty acids and their oxygenated derivatives (oxylipins) (PubMed:17112342). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase) (PubMed:17112342). Catalyzes predominantly the oxidation of the terminal carbon (omega-oxidation) of saturated and unsaturated fatty acids (PubMed:17112342). May act as a major omega-hydroxylase for dodecanoic (lauric) acid in kidney (PubMed:17112342). Participates in omega-hydroxylation of (5Z,8Z,11Z,14Z)-eicosatetraenoic acid (arachidonate) to 20-hydroxyeicosatetraenoic acid (20-HETE), a signaling molecule acting both as vasoconstrictive and natriuretic with overall effect on arterial blood pressure (PubMed:17112342). Acts as an omega-hydroxylase and epoxidase toward (5Z,8Z,11Z,14Z,17Z)-eicosapentaenoic acid (EPA). Catalyzes the epoxidation of the last double bond of EPA with no preferred stereoselectivity, producing both (R,S) and (S,R) stereoisomers (PubMed:17112342). Can also catalyze the omega-1 and omega-2 oxidation of fatty acids with lower efficiency (PubMed:17112342).[UniProtKB/Swiss-Prot Function]


[View online »](#)

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 .
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).