

Product datasheet for **MR208027L4V**

Cyp46a1 (NM_010010) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Cyp46a1 (NM_010010) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Cyp46a1
Synonyms:	Cyp46
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_010010
ORF Size:	1503 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR208027).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_010010.1 , NP_034140.1
RefSeq Size:	2146 bp
RefSeq ORF:	1503 bp
Locus ID:	13116
UniProt ID:	Q9WVK8
Cytogenetics:	12 F1



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Gene Summary:

P450 monooxygenase that plays a major role in cholesterol homeostasis in the brain. Primarily catalyzes the hydroxylation (with S stereochemistry) at C-24 of cholesterol side chain, triggering cholesterol diffusion out of neurons and its further degradation (PubMed:10377398, PubMed:16505352, PubMed:28190002). By promoting constant cholesterol elimination in neurons, may activate the mevalonate pathway and coordinate the synthesis of new cholesterol and nonsterol isoprenoids involved in synaptic activity and learning (PubMed:16505352). Further hydroxylates cholesterol derivatives and hormone steroids on both the ring and side chain of these molecules, converting them into active oxysterols involved in lipid signaling and biosynthesis (By similarity). Acts as an epoxidase converting cholesta-5,24-dien-3beta-ol/desmosterol into (24S),25-epoxycholesterol, an abundant lipid ligand of nuclear NR1H2 and NR1H3 receptors shown to promote neurogenesis in developing brain (By similarity). May also catalyze the oxidative metabolism of xenobiotics, such as clotrimazole (By similarity).[UniProtKB/Swiss-Prot Function]