

Product datasheet for **MR206963L3V**

Cyp27a1 (BC002183) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

| | |
|---------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | Cyp27a1 (BC002183) Mouse Tagged ORF Clone Lentiviral Particle |
| Symbol: | Cyp27a1 |
| Synonyms: | 1300013A03Rik; Cyp27 |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-Myc-DDK-P2A-Puro (PS100092) |
| Tag: | Myc-DDK |
| ACCN: | BC002183 |
| ORF Size: | 1311 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(MR206963). |
| 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: | BC002183 , AAH02183 |
| RefSeq Size: | 1579 bp |
| RefSeq ORF: | 1313 bp |
| Locus ID: | 104086 |
| Cytogenetics: | 1 38.54 cM |



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Gene Summary:

Cytochrome P450 monooxygenase that catalyzes regio- and stereospecific hydroxylation of cholesterol and its derivatives. Hydroxylates (with R stereochemistry) the terminal methyl group of cholesterol side-chain in a three step reaction to yield at first a C26 alcohol, then a C26 aldehyde and finally a C26 acid. Regulates cholesterol homeostasis by catalyzing the conversion of excess cholesterol to bile acids via both the "neutral" (classic) and the "acid" (alternative) pathways. May also regulate cholesterol homeostasis via generation of active oxysterols, which act as ligands for NR1H2 and NR1H3 nuclear receptors, modulating the transcription of genes involved in lipid metabolism (By similarity). Plays a role in cholestanol metabolism in the cerebellum (PubMed:28190002). Similarly to cholesterol, hydroxylates cholestanol and may facilitate sterol diffusion through the blood-brain barrier to the systemic circulation for further degradation. Also hydroxylates retinal 7-ketocholesterol, a noxious oxysterol with pro-inflammatory and pro-apoptotic effects, and may play a role in its elimination from the retinal pigment epithelium. May play a redundant role in vitamin D biosynthesis. Catalyzes 25-hydroxylation of vitamin D3 that is required for its conversion to a functionally active form (By similarity).[UniProtKB/Swiss-Prot Function]