

Product datasheet for **MR204522L4V**

Akr1b3 (NM_009658) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Akr1b3 (NM_009658) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Akr1b3
Synonyms:	Ahr-1; Ahr1; Akr1b1; Aldor1; Aldr1; ALR2; AR
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_009658
ORF Size:	951 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR204522).
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_009658.2 , NP_033788.2
RefSeq Size:	1402 bp
RefSeq ORF:	951 bp
Locus ID:	11677
UniProt ID:	P45376
Cytogenetics:	6 B1



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Gene Summary:

Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols (PubMed:17381426, PubMed:19010934, PubMed:7851421). Displays enzymatic activity towards endogenous metabolites such as aromatic and aliphatic aldehydes, ketones, monosaccharides, bile acids and xenobiotics substrates. Key enzyme in the polyol pathway, catalyzes reduction of glucose to sorbitol during hyperglycemia. Reduces steroids and their derivatives and prostaglandins (PubMed:19010934). Displays low enzymatic activity toward all-trans-retinal, 9-cis-retinal, and 13-cis-retinal. Catalyzes the reduction of diverse phospholipid aldehydes such as 1-palmitoyl-2-(5-oxovaleroyl)-sn-glycero-3-phosphoethanolamin (POVPC) and related phospholipid aldehydes that are generated from the oxydation of phosphatidylcholine and phosphatidylethanolamides (PubMed:17381426). Plays a role in detoxifying dietary and lipid-derived unsaturated carbonyls, such as crotonaldehyde, 4-hydroxynonenal, trans-2-hexenal, trans-2,4-hexadienal and their glutathione-conjugates carbonyls (GS-carbonyls) (By similarity). [UniProtKB/Swiss-Prot Function]