

Product datasheet for MC203763

Akr1b3 (NM_009658) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Akr1b3 (NM_009658) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Akr1b3
Synonyms:	Ahr-1; Ahr1; Akr1b1; Aldor1; Aldr1; ALR2; AR
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC021655 CCACGCGTCCGTTTAAAGGTGCGCGCCCGAGCCAGCGCTGCACATTTGCCGGTCCGGGTTTGTAAACGTGC AGCGATCATGGCCAGCCATCTGGAACCTCAACAACGGCACCAAGATGCCACCCTGGGCTGGGCACCTGG AAGTCCCCTCCTGGCCAGGTGACTGAGGCGGTGAAAGTTGCTATTGACTTGGGGTACCGCCACATTGACT GCGCCCAGGTGTACCAGAATGAGAAGGAGGTGGGAGTGGCCCTCCAGGAGAAGCTCAAGGAGCAGGTGGT GAAGCGGCAGGATCTCTTCATTGTGAGCAAGCTGTGGTGACGTTCCATGACAAGAGCATGGTGAAGGA GCCTTCCAGAAGACTGAGCGACCTGCAGCTGGACTACCTGGATCTCTACCTTATTCACTGGCCAAACGG GGTTCAAGCCTGGGCCGACTATTTCCACTGGATGCCTCAGGGAACGTGATACCTAGTGACACCGATTT TGTGGACACTTGGACGGCTATGGAACAAGTGGATGAAGGTTTGGTGAACAATCGGTGTCTCCAAC TTCAACCCTCTCAGATTGAGAGGATCTTGAACAACCTGGCTTAAAATAAAGCCTGCGGTGAACCAGA TCGAGTGCCACCCGTACCTAACTCAGGAGAAGCTGATTGAATACTGCCACAGCAAAGGCATCGTGGTGAC AGCATATAGTCCCCTTGGTTCTCCTGACAGGCCCTGGGCCAAGCCTGAAGATCCGTCTCTCTGGAGGAT CCCAGGATCAAAGCAATTGCAGCCAAGTACAATAAACTACAGCCAGGTGCTGATCCGGTTCGCCATTC AGAGGAACTTGGTAGTGATCCCCAAGTCGGTGACACCAGTGCGCATTGCTGAGAAGTTGAAGTCTTTGA CTTTGAGCTGAGCAGCGAGGACATGGCCACTCTACTCAGTACAACAGGAACTGGAGGGTGTGCGCCTTG ATGAGCTGTGCCAAACACAAGGATTACCCCTTCCACGCCGAAGTCTGAAGCTGTGGCGAGCGGATCCCTG CTCCTCTCAAGTGGCTTGCACCTGTTCTTTCTGCCTCATCTGCCCTTGAAGTGTCTGTGTGCACT AGGTGGCACCTTGCAAACCAGATGGTGAAGTGTAGTTAGTTTACATAGAGTCTGGAGGGCAGTACCAGT AGCCAAGGTGTTTCTTCCAGCCTTCTTGGTCTTTCTTCTTACCCCTGGAGGACTTTAACACAAGTAC CCTTTCCAACCAAGAGAAGCAAGCTTTAGAGTCCAAGCCGTGCCACTAACACTTAAATGTGAGTGCTTA GAACTGTAATCCTTTGGTGCAGACTTCTCCTTGCCTCAAATAAACTGCTTTTGTGAAAAAAAAAAAAAA AA
Restriction Sites:	RsrII-NotI
ACCN:	NM_009658
Insert Size:	951 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	BC021655 , AAH21655
RefSeq Size:	1402 bp
RefSeq ORF:	951 bp
Locus ID:	11677
UniProt ID:	P45376
Cytogenetics:	6 B1
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, monosacharides, 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 phosphotidylcholine and phosphatdylethanolamides (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]