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Product datasheet for AR51802PU-S

AKR1B1 / ALDR1 (1-316, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	AKR1B1 / ALDR1 (1-316, His-tag) human recombinant protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGSSHHHHHH SSGLVPRGSH MGSMASHLEL NNGTKMPTLG LGTWKSPPGQ VTEAVKVAID LGYRHIDCAQ VYQNEKEVGV ALQEKLKEQV VKRQDLFIVS KLWCTFHDKS MVKGAFQKTL SDLQLDYLDL YLIHWPTGFK PGPDYFPLDA SGNVIPSDTD FVDTWTAMEQ LVDEGLVKTI GVSNFNPLQI ERILNKPGLK YKPAVNQIEC HPYLTQEKLI EYCHSKGIVV TAYSPLGSPD RPWAKPEDPS LLEDPRIKAI AAKYNKTTAQ VLIRFPIQRN LVVIPKSVTP VRIAENLKVF DFEVSSEDMA TLLSYNRNWR VCALMSCAKH KDYPFHAEV
Tag:	His-tag
Predicted MW:	38.1 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: Phosphate buffer saline (pH 7.4) containing 10% glycerol.
Preparation:	Liquid purified protein
Protein Description:	Recombinant mouse Akr1b1, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_033788
Locus ID:	11677
UniProt ID:	P45376, Q3UDY1
Cytogenetics:	6 B1
Synonyms:	Ahr-1; Ahr1; Akr1b1; Aldor1; Aldr1; ALR2; AR

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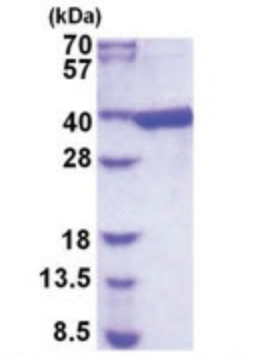
Summary: Catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols (PubMed:17381426, PubMed:19010934, PubMed:7851421). Displays enzymatic activity towards endogenous metabolites such as aromatic and aliphatic aldehydes, ketones, monosacharides, 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 phosphatdyleethanolamides (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]

Product images:



15% SDS-PAGE (3ug)

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