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Product datasheet for AR09146PU-L

AKR1B1 / ALDR1 (1-316) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	AKR1B1 / ALDR1 (1-316) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MASRLLLNNG AKMPILGLGT WKSPPGQVTE AVKVAIDVGY RHIDCAHVYQ NENEVGVAIQ EKLREQVVKR EELFIVSKLW CTYHEKGLVK GACQKTLSDL KLDYLDLYLI HWPTGFKPGK EFFPLDESGN VVPSDTNILD TWAAMEELVD EGLVKAIGIS NFNHLQVEMI LNKPGLKYKP AVNQIECHPY LTQEKLIQYC QSKGIVVTAY SPLGSPDRPW AKPEDPSLLE DPRIKAIAAK HNKTTAQVLI RFPMQRNLVV IPKSVTPERI AENFKVFDFE LSSQDMTTLL SYNRNWRVCA LLSCTSHKDY PFHEEF
Predicted MW:	35.8 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol
Bioactivity:	Specific: Approximately 0.2-0.9 units/mg. Enzymatic activity was confirmed by measuring the amount of enzyme catalyzing the oxidation of 1 micromole NADPH/min at 25°C. Specific activity was expressed as units/mg protein. **Activity Assay** 1. Prepare a 750µl reaction mix into a suitable container: The final concentrations are 0.1M sodium phosphate (pH7.0), 10mM DL-glyceraldehyde, 0.3mM NADPH. 2. Add 50µl of recombinant AKR1B1 solution with various concentrations (2.5µg, 5µg, 10µg) in 750µl reaction buffer. 3. Mix by inversion and Incubate at 25C for 2.5 minutes. 4. Add 200µl of 50 mM DL-glyceraldehyde as a substrate and immediately mix by inversion. 5. Record the increase at A340nm for 3 minutes.
Endotoxin:	< 1.0 EU per 1 µg of protein (determined by LAL method).

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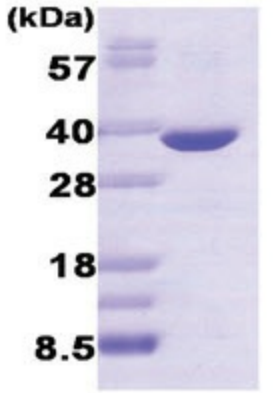
Preparation:	Liquid purified protein
Protein Description:	Recombinant Aldose reductase (AKR1B) protein was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C to -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_001333071
Locus ID:	231
Cytogenetics:	7q33
Synonyms:	ADR; ALDR1; ALR2; AR
Summary:	This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member catalyzes the reduction of a number of aldehydes, including the aldehyde form of glucose, and is thereby implicated in the development of diabetic complications by catalyzing the reduction of glucose to sorbitol. Multiple pseudogenes have been identified for this gene. The nomenclature system used by the HUGO Gene Nomenclature Committee to define human aldo-keto reductase family members is known to differ from that used by the Mouse Genome Informatics database. [provided by RefSeq, Feb 2009]
Protein Families:	Druggable Genome
Protein Pathways:	Fructose and mannose metabolism, Galactose metabolism, Glycerolipid metabolism, Metabolic pathways, Pentose and glucuronate interconversions, Pyruvate metabolism

Product images:



15% SDS-PAGE (3ug)