Active Recombinant Human AKR1B10 protein

Cat. No. AKR1B10-406H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AKR1B10(1-316aa) was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-316 a.a.
Description	AKR1B10, also known as Aldo-keto reductase family 1, member B10, AKR1B10 is a monomeric protein that efficiently catalyzes the reduction of aromatic and aliphatic aldehydes and ketones. AKR1B10 is ubiquitously expressed in many human tissues but is highly expressed in small intestine, colon and adrenal gland. This protein is pathogenically involved in diabetic complications and has been reported that AKR1B10 is overexpressed in human tumors, such as liver, breast, and lung cancer, and may play a critical role in the development and progression of cancer.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol.
Bio-activity	Specific activity: approximately 0.32 - 0.4 units/mg. Enzymatic activity was confirmed by measuring the amount of enzyme catalyzing the oxidation of 1 micromole NADPH per minute at 25C. Specific activity was expressed as units/mg protein.
Molecular Mass	36 kDa (316aa), confirmed by MALDI-TOF.
AA Sequence	MATFVELSTK AKMPIVGLGT WKSPLGKVKE AVKVAIDAGY RHIDCAYVYQ

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	NEHEVGEAIQ EKIQEKAVKR EDLFIVSKLW PTFFERPLVRKAFEKTLKDL KLSYLDVYLI HWPQGFKSGD DLFPKDDKGN AIGGKATFLD AWEAMEELVD EGLVKALGVS NFSHFQIEKL LNKPGLKYKPVTNQVECHPY LTQEKLIQYC HSKGITVTAY SPLGSPDRPW AKPEDPSLLE DPKIKEIAAK HKKTAAQVLI RFHIQRNVIV IPKSVTPARIVENIQVFDFK LSDEEMATIL SFNRNWRACN VLQSSHLEDY PFDAEY
Purity	> 95% by SDS - PAGE
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	AKR1B10 aldo-keto reductase family 1, member B10 (aldose reductase) [Homo sapiens]
Official Symbol	AKR1B10
Synonyms	AKR1B10; aldo-keto reductase family 1, member B10 (aldose reductase); AKR1B11; aldo-keto reductase family 1 member B10; AKR1B12; aldo keto reductase family 1; member B11 (aldose reductase like); aldose reductase like 1; aldose reductase like peptide; aldose reductase related protein; ALDRLn; ARL 1; ARL1; HIS; HSI; small intestine reductase; ARP; hARP; SI reductase; aldose reductase-like 1; aldose reductase-like peptide; aldose reductase-related protein; aldo-keto reductase family 1, member B11 (aldose reductase-like); ARL-1; MGC14103;
Gene ID	57016

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mRNA Refseq	NM_020299
Protein Refseq	NP_064695
MIM	604707
UniProt ID	O60218
Chromosome Location	7q33
Pathway	Fructose and mannose metabolism, organism-specific biosystem; Fructose and mannose metabolism, conserved biosystem; Galactose metabolism, organism-specific biosystem; Galactose metabolism, conserved biosystem; Glycerolipid metabolism, organism-specific biosystem; Glycerolipid metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem;
Function	aldo-keto reductase (NADP) activity; geranylgeranyl reductase activity; indanol dehydrogenase activity; protein binding; retinal dehydrogenase activity;

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