Active Recombinant Human AKR1C4 protein, His-tagged

Cat. No. AKR1C4-1006H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AKR1C4(1-323aa) fused with His tag at N-terminal was expressed in E. coli, bioactivity Validated.
Species	Human
Source	E.coli
ProteinLength	1-323 a.a.
Description	AKR1C4 belongs to aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. It catalyzes the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. This enzyme catalyzes the bioreduction of chlordecone, a toxic organochlorine pesticide, to chlordecone alcohol in liver.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl,1mM DTT
Bio-activity	Specific activity is > 700 pmol/min/ug, and is defined as the amount of enzyme that catalyze the reduction of 1.0 pmole 3-chlorobenzaldehyde presence of NADP per minute at pH 8.8 at 25 centigrade.
Molecular Mass	39.2 kDa(343aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MDPKYQRVEL NDGHFMPVLG FGTYAPPEVP RNRAVEVTKL AIEAGFRHID SAYLYNNEEQ VGLAIRSKIADGSVKREDIF

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	YTSKLWCTFF QPQMVQPALE SSLKKLQLDY VDLYLLHFPM ALKPGETPLP KDENGKVIFD TVDLSATWEV MEKCKDAGLAKSIGVSNFNC RQLEMILNKP GLKYKPVCNQ VECHPYLNQS KLLDFCKSKD IVLVAHSALG TQRHKLWVDP NSPVLLEDPV LCALAKKHKRTPALIALRYQ LQRGVVVLAK SYNEQRIREN IQVFEFQLTS EDMKVLDGLN RNYRYVVMDF LMDHPDYPFS DEY
Purity	> 90% by SDS - PAGE
Storage	Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1.0 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	AKR1C4 aldo-keto reductase family 1, member C4 (chlordecone reductase; 3-alpha hydroxysteroid dehydrogenase, type I; dihydrodiol dehydrogenase 4) [Homo sapiens]
Official Symbol	AKR1C4
Synonyms	AKR1C4; aldo-keto reductase family 1, member C4 (chlordecone reductase; 3-alpha hydroxysteroid dehydrogenase, type I; dihydrodiol dehydrogenase 4); CHDR; aldo-keto reductase family 1 member C4; 3 alpha HSD; C11; CDR; DD4; HAKRA; MGC22581; 3-alpha-HSD1; dihydrodiol dehydrogenase isozyme DD4; type I 3-alpha-hydroxysteroid dehydrogenase; DD-4; 3-alpha-HSD;
Gene ID	1109
mRNA Refseq	NM_001818

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Protein Refseq	NP_001809
MIM	600451
UniProt ID	P17516
Chromosome Location	10p15.1
Pathway	Bile acid and bile salt metabolism, organism-specific biosystem; Bile acid biosynthesis, cholesterol => cholate, organism-specific biosystem; Bile acid biosynthesis, cholesterol => cholate, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem;
Function	aldo-keto reductase (NADP) activity; androsterone dehydrogenase (B-specific) activity; androsterone dehydrogenase activity; bile acid transmembrane transporter activity; chlordecone reductase activity; electron carrier activity; oxidoreductase activity; oxidoreductase activity, acting on NADH or NADPH, quinone or similar compound as acceptor; retinal dehydrogenase activity;

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