

Recombinant human Aldo-keto Reductase 1C4/AKR1C4 protein

Catalog Number: ATGP3277

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-323aa

UniProt No.

P17516

NCBI Accession No.

NP_001809

Alternative Names

"Aldo-keto reductase family 1 member C4, CHDR, aldo-keto reductase family 1, member C4 (chlordecone reductase; 3-alpha hydroxysteroid dehydrogenase, type I; dihydrodiol dehydrogenase 4), DD4 HAKRA, C11, 3-alpha-HSD, CDR, chlordecone reductase, 3-alpha hydroxysteroid dehydrogenase, type I, dihydrodiol dehydrogenase 4 "

PRODUCT SPECIFICATION

Molecular Weight

37 kDa (323aa)

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.5) containing 0.1M NaCl, 10% glycerol, 1mM DTT

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 700pmol/min/ug, and is defined as the amount of enzyme that catalyze the oxidation of 1.0pmole 1-Acenaphthenol in the presence of NADP per minute at pH 8.8 at 25C.

Tag

Non-Tagged

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

AKR1C1 also known as Aldo-keto reductase family 1 member C4, 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 bio-reduction of chlordecone, a toxic organochlorine pesticide, to chlordecone alcohol in liver. Recombinant human AKR1C4 protein was expressed in E. coli and purified by using conventional chromatography.

Amino acid Sequence

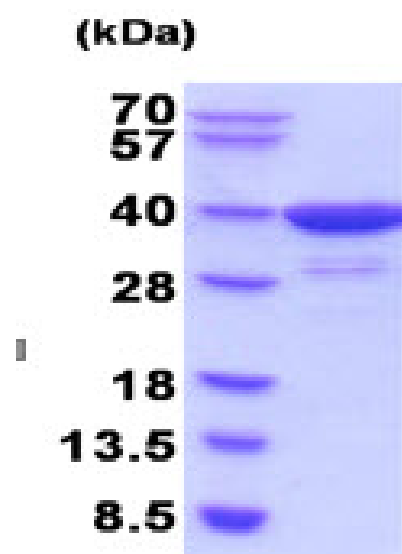
MDPKYQRVEL NDGHFMPVLG FGTYAPPEVP RNRAVEVTKL AIEAGFRHID SAYLYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLWCTFF QPQMVQPALE SSLKKLQLDY VDLYLLHFPK ALKPGETPLP KDENGKVIFD TVDLSATWEV MEKCKDAGLA KSIGVSNFNC RQLEMILNKP GLKYKPCVNC VECHPYLNQS KLLDFCKSKD IVLVAHSALG TQRHKLWVDP NSPVLLDPV LCAKAKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIREN IQVFEFQLTS EDMKVLDGLN RNYRYVVMDF LMDHPDYPFS DEY

General References

Khanna M. et al. (1995) Genomics. 25(2):588-90.
Stayrook KR. et al. (2008) Mol Pharmacol. 73(2):607-12.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)