

Recombinant human Aldo-keto Reductase 1C4/AKR1C4 protein

Catalog Number: ATGP1106

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-323aa

UniProt No.

P17516

NCBI Accession No.

NP_001809

PRODUCT SPECIFICATION

Molecular Weight

39.2 kDa (343aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT

Purity

> 90% by SDS-PAGE

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

His-Tag

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.

BACKGROUND

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 chlordane, a toxic organochlorine pesticide, to chlordane alcohol in liver. Recombinant human AKR1C4 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.

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Amino acid Sequence

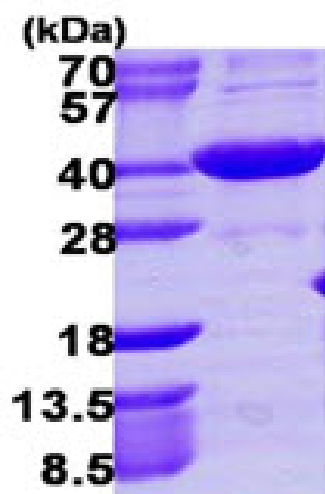
MGSSHHHHHH SSGLVPRGSH MDPKYQRVEL NDGHFMPVLG FGTYAPPEVP RNRAVEVTKL AIEAGFRHID SAYLYNNEEQ
VGLAIRSKIA DGSVKREDIF YTSKLWCTFF QPQMVQPALE SSLKKLQLDY VDLYLLHFPM ALKPGETPLP KDENGKVIFD
TVDLSATWEV MEKCKDAGLA KSIGVSNFNC RQLEMILNKP GLKYKPVCNQ VECHPYLNQS KLLDFCKSKD IVLVAHSALG
TQRHKLWVDP NSPVLLEDPV LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIREN IQVFEFQLTS EDMKVLDGLN
RNYRYVVMDF LMDHPDYPFS DEY

General References

Khanna M. et al. (1995) Genomics. 25:588-90.
Stayrook KR. et al. (2008) Mol Pharmacol. 73:607-612.

DATA

SDS-PAGE



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

15% SDS-PAGE (3ug)