
Product Data Sheet

Product Name: AKR1C4 Human

Cat. No.: GP21379

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Aldo-keto reductase family 1 member C4 (chlordecone reductase 3-alpha hydroxysteroid dehydrogenase type I dihydrodiol dehydrogenase 4); 3-alpha-hydroxysteroid dehydrogenase type I; MGC22581; HAKRA; 3 alpha-hydroxysteroid dehydrogenase/dihydrodiol dehydrogenase 4; CDR; DD4; CHDR; 3-alpha-HSD1; C11.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MDPKYQRVEL NDGHFMPVLG FGTYAPPEVP RNRAVEVTKL AIEAGFRHID SAYLYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLWCTFF QPQMVPQPALE SSLKKLQLDY VDLYLLHFPM ALKPGETPLP KDENGKVIFD TVDLSATWEV MEKCKDAGLAKSIGVSNFNC RQLEMILNKP GLKYKPCVNQ VECHPYLNQS KLLDFCKSKD IVLVAHSALG TQRHKLWVDP NSPVLLEDPV LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIREN IQVFQQLTS EDMKVL DGLN RNYRYVVMDF LMDHPDYPFS DEY.		
Formulation	AKR1C4 protein 1mg/ml is supplied in 20mM Tris-HCl, pH-8, 0.1M NaCl, 1mM DTT and 20% Glycerol.		

Introduction

AKR1C4 is a member of the aldo/keto reductase superfamily that has over 40 known enzymes and proteins. AKR1C4 enables the conversion of aldehydes and ketones to their corresponding alcohols by using NADH and/or NADPH as cofactors. AKR1C4 takes part in the bioreduction of chlordecone, a toxic organochlorine pesticide, to chlordecone alcohol in liver.

Biological Activity

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

Caution: Product has not been fully validated for medical applications. For research use only.

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minute at pH 8.8 at 25°C .

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

AKR1C4 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 343 amino acids (1-323) and having a molecular mass of 39.2 kDa. The AKR1C4 is fused to a 20 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.

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