

Recombinant human Aldo-keto Reductase 1C1/AKR1C1 protein

Catalog Number: ATGP3275

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-323aa

UniProt No.

Q04828

NCBI Accession No.

NP_001344

Alternative Names

Aldo-keto reductase family 1 member C1, DDH1, DDH, MBAB, DD1, HAKRC, Dihydrodiol dehydrogenase 1, 20-alpha (3-alpha)-hydroxysteroid dehydrogenase, High-affinity hepatic bile acid-binding protein (HBAB)

PRODUCT SPECIFICATION

Molecular Weight

36.7 kDa (323aa)

Concentration

1mg/ml (determined by Bradford assay)

Formulation

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

Purity

> 95% by SDS-PAGE

Endotoxin level

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

Biological Activity

Specific activity is > 500pmol/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 C1, is member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the reduction of progesterone to the inactive form 20-alpha-hydroxy-progesterone. Recombinant human AKR1C1 protein was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MDSKYQCVKL NDGHFMPVLG FGTYAPAEVP KSKALEATKL AIEAGFRHID SAHLYNNEEQ VGLAIRSKIA DGSVKREDIF
YTSKLWCNSH RPELVRPALE RSLKNLQLDY VDLYLHFPV SVKPGEEVIP KDENGKILFD TVDLCAWTEA VEKCKDAGLA
KSGVSNFNR RQLEMILNKP GLKYKPCNQ VECHPYFNQR KLLDFCKSKD IVLVAYSALG SHREEPWVDP NSPVLLDPV
LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIRQN VQVFEFQLTS EEMKAIDGLN RNVRYLTLDI FAGPPNYPFS DEY

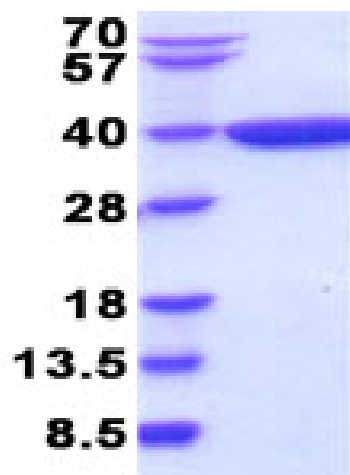
General References

Zhang Y., et al. (2000) J. Mol. Endocrinol. 25(2):221-8.
Zhang Y., et al. (2009) Mol Cell Endocrinol. 298(1-2):76-83.

DATA

SDS-PAGE

(kDa)



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

15% SDS-PAGE (3ug)