Recombinant human Aldo-keto reductase 1D1/AKR1D1 protein

Catalog Number: ATGP0953

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-326aa

UniProt No.
P51857

NCBI Accession No.
NP_005980.1

Alternative Names
Aldo-keto reductase family 1 member D1, SRD5B1, Delta 4-3-ketosteroid-5-beta-reductase

PRODUCT SPECIFICATION

Molecular Weight
39.5 kDa (346aa) confirmed by MALDI-TOF

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 100mM NaCl

Purity
> 90% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

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
Aldo-keto reductase family 1, member D1, also known as AKR1D1, is a member of the AKR superfamily. The AKR family of proteins are soluble NADPH oxidoreductases. They play important roles in the metabolism of drugs, carcinogens and reactive aldehydes. AKR1D1 is responsible for the catalysis of the 5-beta-reduction of bile acid intermediates and steroid hormones which carry a delta (4) -3-one structure. AKR1D1 is highly expressed in liver, colon and testis. Deficiency of this enzyme may contribute to hepatic dysfunction. Recombinant human AKR1D1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional

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chromatography techniques.

Amino acid Sequence

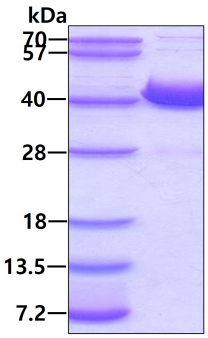
<MGSSHHHHHH SSGLVPRGSH> MDLSAASHRI PLSDGNSIPI IGLGTYSEPK STPKGACATS VKVAIDTGYR HIDGAYIYQN EHEVGEAIRE KIAEGKVRRE DIFYCGKLWA TNHVPEMVRP TLERTLRVLQ LDYVDLYIIE VPMAFKPGDE IYPRDENGKW LYHKSNLCAT WEAMEACKDA GLVKSLGVSN FNRRQLELIL NKPGLKHKPV SNQVECHPYF TQPKLLKFCQ QHDIVITAYS PLGTSRNPIW VNVSSPPLLK DALLNSLGKR YNKTAAQIVL RFNIQRGVVV IPKSFNLERI KENFQIFDFS LTEEEMKDIE ALNKNVRFVE LLMWRDHPEY PFHDEY

General References

Charbonneau A., et al. (2001) Biochim Biophys Acta. 1517:228-235.
Lemonde H A., et al. (2003) Gut. 52:1494-1499.

DATA

SDS-PAGE



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