

Recombinant Human AKR1D1 protein, His-tagged

Cat. No. AKR1D1-3463H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AKR1D1(1-326aa) fused with His tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-326 a.a.
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.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 100mM NaCl
Molecular Mass	39.5 kDa (346aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MDLSAASHRI PLSDGNSIPI IGLGTYSEPK STPKGACATS VKVAIDTGYR HIDGAYIYQN EHEVGEAIREKIAEGKVRRE DIFYCGKLWA TNHVP EMVRP TLERTLRVLQ LDYVDLYIIE VPMAFKPGDE

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IYPRDENGKW LYHKSNL CAT WEAMEACKDAGLVKSLGVSN FNRRQLELIL
 NKPGLKHKPV SNQVECHPYF TQPKLLKFCQ QHDIVITAYS PLGTSRNPIW
 VNVSSPPLLK DALLNSLGKRYNKTA AQIVL RFNIQRGVVV IPKSFNLERI
 KENFQIFDFS LTEEEMKDIE ALNKNVRFVE LLMWRDHPEY PFHDEY

Purity >90% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name AKR1D1 aldo-keto reductase family 1, member D1 (delta 4-3-ketosteroid-5-beta-reductase) [Homo sapiens]

Official Symbol AKR1D1

Synonyms AKR1D1; aldo-keto reductase family 1, member D1 (delta 4-3-ketosteroid-5-beta-reductase); SRD5B1; 3-oxo-5-beta-steroid 4-dehydrogenase; delta(4)-3-oxosteroid 5-beta-reductase; delta(4)-3-ketosteroid 5-beta-reductase; steroid-5-beta-reductase, beta polypeptide 1 (3-oxo-5 beta-steroid delta 4-dehydrogenase beta 1); CBAS2; 3o5bred;

Gene ID 6718

mRNA Refseq NM_005989

Protein Refseq NP_005980

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MIM	604741
UniProt ID	P51857
Chromosome Location	7q32-q33
Pathway	Bile acid and bile salt metabolism, organism-specific biosystem; Bile acid biosynthesis, cholesterol =>cholate, organism-specific biosystem; Bile acid biosynthesis, cholesterol => cholate, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem;
Function	3-oxo-5-beta-steroid 4-dehydrogenase activity; delta4-3-oxosteroid 5beta-reductase activity; oxidoreductase activity; steroid binding;