Recombinant Human AKR1C1, His-tagged

Cat. No. AKR1C1-27157TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length protein, corresponding to amino acids 1-323 of Human AKR1C1 with an N terminal His tag. Predicted mwt: 39 kDa;
Species	Human
Source	E.coli
ProteinLength	1-323 a.a.
Description	This gene encodes a 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 reaction of progesterone to the inactive form 20-alpha-hydroxy-progesterone. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14.
Conjugation	HIS
Tissue specificity	Expressed in all tissues tested including liver, prostate, testis, adrenal gland, brain, uterus, mammary gland and keratinocytes. Highest levels found in liver, mammary gland and brain.
Form	Liquid

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Purity	>90% by SDS-PAGE
Storage buffer	Preservative: NoneConstituents: 20% Glycerol, 20mM Tris HCl, 1mM DTT, pH 8
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MDSKYQCVKL NDGHFMPVLG FGTYAPAEVP KSKALEATKL AIEAGFRHID SAHLYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLWCNSH RPELVRPALE RSLKNLQLDY VDLYLIHFPV SVKPGEEVIP KDENGKILFD TVDLCATWEA VEKCKDAGLAKSIGVSNFNR RQLEMILNKP GLKYKPVCNQ VECHPYFNQR KLLDFCKSKD IVLVAYSALG SHREEPWVDP NSPVLLEDPV LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIRQN VQVFEFQLTS EEMKAIDGLN RNVRYLTLDI FAGPPNYPFS DEY
Sequence Similarities	Belongs to the aldo/keto reductase family.
Full Length	Full L.

GENE INFORMATION

Gene Name	AKR1C1 aldo-keto reductase family 1, member C1 (dihydrodiol dehydrogenase 1; 20-alpha (3-alpha)-hydroxysteroid dehydrogenase) [Homo sapiens]
Official Symbol	AKR1C1
Synonyms	AKR1C1; aldo-keto reductase family 1, member C1 (dihydrodiol dehydrogenase 1; 20-alpha (3-alpha)-hydroxysteroid dehydrogenase); DDH1; aldo-keto reductase family 1 member C1; DD1; DDH; HAKRC; MBAB;

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Gene ID	1645
mRNA Refseq	NM_001353
Protein Refseq	NP_001344
MIM	600449
Uniprot ID	Q04828
Chromosome Location	10p15-p14
Pathway	Metabolism of xenobiotics by cytochrome P450, organism-specific biosystem; Metabolism of xenobiotics by cytochrome P450, conserved biosystem; Steroid hormone biosynthesis, organism-specific biosystem; Steroid hormone biosynthesis, conserved biosystem;
Function	17-alpha,20-alpha-dihydroxypregn-4-en-3-one dehydrogenase activity; aldo-keto reductase (NADP) activity; androsterone dehydrogenase (B-specific) activity; bile acid binding; carboxylic acid binding;

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