Active Recombinant Full Length Human AKR1C3 Protein, His tagged

Cat. No. AKR1C3-26146TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active recombinant human AKR1C3 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-323 aa
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 reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ), and the oxidation of 9alpha,11beta-PGF2 to PGD2. It may play an important role in the pathogenesis of allergic diseases such as asthma, and may also have a role in controlling cell growth and/or differentiation. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. Three transcript variants encoding different isoforms have been found for this gene.
Form	Liquid
Molecular Mass	39 kDa (343aa) confirmed by MALDI-TOF

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AA Sequence	< MGSSHHHHHHSSGLVPRGSH> MDSKHQCVKLNDGHFMPVLGFGTYAPPEVPRS KALEVTKLAIEAGFRHIDSAHLYNNEEQVGLAIRSKIADGSVKREDIFYTSKLWSTFHR PELVRPALENSLKKAQLDYVDLYLIHSPMSLKPGEELSPTDENGKVIFDIVDLCTTWE AMEKCKDAGLAKSIGVSNFNRRQLEMILNKPGLKYKPVCNQVECHPYFNRSKLLDF CKSKDIVLVAYSALGSQRDKRWVDPNSPVLLEDPVLCALAKKHKRTPALIALRYQLQ RGVVVLAKSYNEQRIRQNVQVFEFQLTAEDMKAIDGLDRNLHYFNSDSFASHPNYP YSDEY
Bio-Activity	Specific activity is > 1,000 pmol/min/μg, and is defined as the amount of enzyme that catalyze the oxidation of 1.0 pmole 1-Acenaphthenol in the presence of NADP per minute at pH 8.8 at 25 centigrade.
Endotoxin	< 1 EU/μg by LAL.
Purity	> 95 % by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Storage Buffer	20mM Tris-HCl buffer (pH 8.0) containing 10 % glycerol
Concentration	1 mg/mL (determined by Bradford assay)
Reference	1. Davies N., et al. (2009) Cancer Res. 69(11):4769-75 2. Kabututu Z., et al. (2009) J Biochem. 145(2):161-8

GENE INFORMATION

Gene Name	AKR1C3 aldo-keto reductase family 1 member C3 [Homo sapiens (human)]

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Official Symbol	AKR1C3
Synonyms	AKR1C3; aldo-keto reductase family 1, member C3 (3-alpha hydroxysteroid dehydrogenase, type II); HSD17B5, hydroxysteroid (17 beta) dehydrogenase 5; aldo-keto reductase family 1 member C3; DDX; dihydrodiol dehydrogenase X; HAKRB; KIAA0119; PGFS; prostaglandin F synthase; indanol dehydrogenase; 3-alpha-HSD type II, brain; dihydrodiol dehydrogenase 3; chlordecone reductase homolog HAKRb; testosterone 17-beta-dehydrogenase 5; type IIb 3-alpha hydroxysteroid dehydrogenase; trans-1,2-dihydrobenzene-1,2-diol dehydrogenase; DD3; HAKRe; HA1753; HSD17B5; hluPGFS
Gene ID	8644
mRNA Refseq	NM_003739
Protein Refseq	NP_003730
MIM	603966
UniProt ID	P42330

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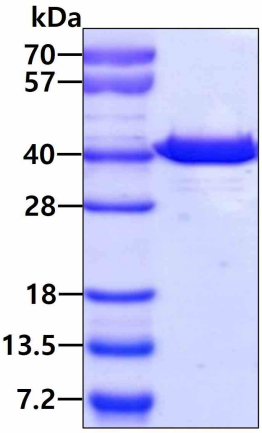
SDS-PAGE	 3 μg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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