Active Recombinant Human AKR1C3 Protein

Cat. No. AKR1C3-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human AKR1C3 protein (1-323aa, 323aa) without tag was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	1-323
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
Bio-activity	Specific activity is > 1000 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

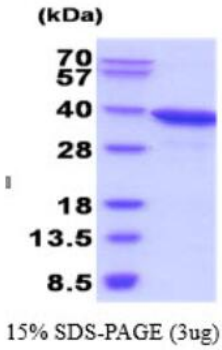
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	minute at pH 8.8 at 25 centigrade.
Molecular Mass	36.8 kDa
AA Sequence	MDSKHQCVKLNDGHFMPVLGFGTYAPPEVPRSKALEVTKLAIEAGFRHIDSAHLYNN EEQVGLAIRSKIADGSVKREDIFYTSKLWSTFHRPELVRPALENSLKKAQLDYVDLYLI HSPMSLKPGEELSPTDENGKVIFDIVDLCTTWEAMEKCKDAGLAKSIGVSNFNRRQL EMILNKPGLKYKPVCNQVECHPYFNRSKLLDFCKSKDIVLVAYSALGSQRDKRWVD PNSPVLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIRQNVQVFEF QLTAEDMKAIDGLDRNLHYFNSDSFASHPNYPYSDEY
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 90% by SDS-PAGE
Applications	Enzyme Activity, SDS-PAGE
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.
Concentration	1 mg/mL (determined by Bradford assay)
Storage Buffer	20 mM Tris-HCl buffer (pH 8.5) containing 0.1 M NaCl, 10% glycerol, 1 mM DTT

GENE INFORMATION

Gene Name	AKR1C3 aldo-keto reductase family 1 member C3 [Homo sapiens (human)]
Official Symbol	AKR1C3
Synonyms	AKR1C3; aldo-keto reductase family 1 member C3; DD3; DDX; PGFS; HAKRB;

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	HAKRe; HA1753; HSD17B5; hluPGFS; aldo-keto reductase family 1 member C3; 3-alpha hydroxysteroid dehydrogenase, type II; 3-alpha-HSD type II, brain; chlordecone reductase homolog HAKRb; dihydrodiol dehydrogenase 3; dihydrodiol dehydrogenase X; indanol dehydrogenase; prostaglandin F synthase; testosterone 17-beta-dehydrogenase 5; trans-1,2-dihydrobenzene-1,2-diol dehydrogenase; type IIb 3-alpha hydroxysteroid dehydrogenase; EC 1.1.1.188; EC 1.1.1.210; EC 1.1.1.239; EC 1.1.1.357; EC 1.1.1.53; EC 1.1.1.62; EC 1.1.1.64
Gene ID	8644
mRNA Refseq	NM_003739
Protein Refseq	NP_003730
MIM	603966
UniProt ID	P42330
SDS-PAGE	 15% SDS-PAGE (3ug)

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

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