Recombinant Human AKR1C3 Protein, His-tagged

Cat. No. AKR1C3-50H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human AKR1C3(1-323) protein with a C-terminal His-tag was expressed in E. coli.
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.
Molecular Mass	40.4 kDa
Purity	≥85% estimated by SDS-PAGE

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Unit Definition	One unit is defined as the amount of enzyme required to produce 1 μmol of NADP+ per minute at 37 centigrade in 50mM K3PO4 pH 7.2 containing 250 μM NADPH and 25 μM 9,10-phenanthrenequinone.
Applications	Enzyme Activity
Stability	≥ 1 year
Storage	Store it at -80 centigrade
Storage Buffer	A solution in 100 mM sodium phosphate, pH 7.2, containing 20% glycerol, 100 mM sodium chloride, and 1 mM EDTA

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; 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
Gene ID	8644
mRNA Refseq	NM_001253908

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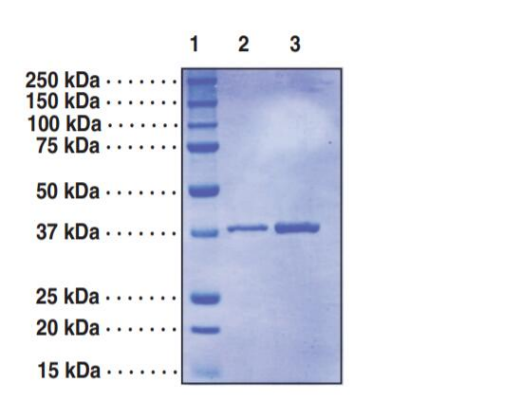
Protein Refseq	NP_001240837
MIM	603966
UniProt ID	P42330
SDS-PAGE Analysis of AKR1C3	 Lane 1: MW Markers; Lane 2: PGFS (2 µg); Lane 3: PGFS (5 µg).

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