

Recombinant Human AKR1C3 Protein, His-tagged

Cat. No. AKR1C3-090H Lot. No. (See product label)

SPECIFICATION

Product Overview	Active recombinant C-terminal His-tagged human AKR1C3 protein (1-323) 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 9α,11β-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 μ mol of NADP ⁺ , per minute at 37 centigrade in 50 mM KPO ₄ pH7.2 containing 250 μ M NADPH and 25 μ M 9,10-phenanthrenequinone.
Stability	$\geq$ 1 year
Storage	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; 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

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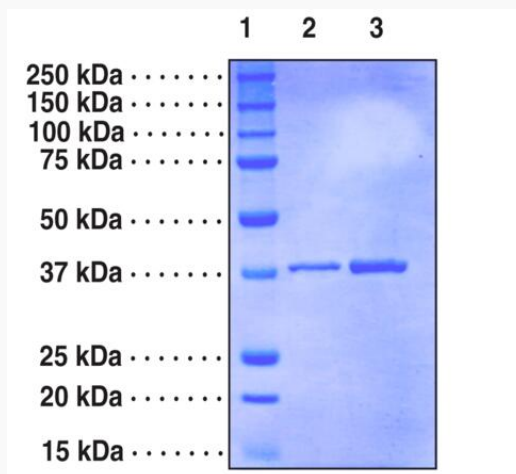
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MIM 603966

UniProt ID P42330

SDS-PAGE analysis
of PGFS



Lane 1: MW Markers

Lane 2: PGFS (2 µg)

Lane 3: PGFS (5 µg)

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