

Product datasheet for **AR09395PU-L**

AKR1C1 / DHH1 (1-323, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	AKR1C1 / DHH1 (1-323, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH</u> MDSKYQCVKL NDGHFMPVLG FGTYAPAEVP KSKALEATKL AIEAGFRHID SAHLYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLWCNSH RPELVRPALE RSLKLNQLDY VDLYLIHFPV SVKPGEEVIP KDENGKILFD TVDLCATWEA VEKCKDAGLA KSIGVSNFNR RQLEMILNKP GLKYKPCNQ VECHPYFNQR KLLDFCKSKD IVLVAYSALG SHREEPWVDP NSPVLLDPV LCALAKKHKR TPALIALRYQ LQRGVVLAK SYNEQRIRQN VQVFEFQLTS EEMKAIDGLN RNVRYLTLDI FAGPPNYPFS DEY
Tag:	His-tag
Predicted MW:	38.9 kDa
Concentration:	lot specific
Purity:	>90% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 20% glycerol



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Bioactivity:	Biological: Specific activity is approximately 0.15 - 0.2 units/mg protein. Enzymatic activity was confirmed by measuring the amount of enzyme catalyzing the oxidation of 1 micromole NADPH per minute at 25°C.
	<u>Activity Assay</u> <ol style="list-style-type: none">1. Prepare a 1.0 ml reaction mix into a suitable container : The final concentrations are 0.1M sodium phosphate (pH 7.0), 10mM DL-glyceraldehyde, 0.3mM NADPH.2. Add 50 ul of recombinant AKR1C1 solution with various concentrations (2.5ug, 5ug, 10ug) in 750 ul reaction buffer.3. Mix by inversion and incubate at 25°C for 2.5 minutes.4. Add 200 ul of 50 mM DL-glyceraldehyde as a substrate and immediately mix by inversion.5. Record the increase in A340nm for 3 minutes.
Preparation:	Liquid purified protein
Protein Description:	Recombinant AKR1C1 protein, fused to His-tag, was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_001344
Locus ID:	1645
UniProt ID:	Q04828
Cytogenetics:	10p15.1
Synonyms:	2-ALPHA-HSD; 20-ALPHA-HSD; C9; DD1; DD1/DD2; DDH; DDH1; H-37; HAKRC; HBAB; MBAB
Summary:	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. [provided by RefSeq, Jul 2008]
Protein Families:	Druggable Genome
Protein Pathways:	Metabolism of xenobiotics by cytochrome P450

Product images:

