

Product datasheet for **AR09893PU-L**

AKR1D1 / SRD5B1 (1-326, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	AKR1D1 / SRD5B1 (1-326, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH</u> MDLSAASHRI PLSDGNSIPI IGLGTYSEPK STPKGACATS VKVAIDTGYR HIDGAIYQN EHEVGEAIRE KIAEGKVRRE DIFYCGKLWA TNHVP EMVRP TLERTLRVLQ LDYVDLYIIE VPMAFKPGDE IYPRDENGKW LYHKS NL CAT WEAMEACKDA GLVKSLGVS N FNRRQLELIL NKPGLKHKPV SNQVECHPYF TQP KLLKFCQ QHDIVITAYS PLGTSRNP IW VNVSSPPLLK DALLNSLGKR YNK TAAQIVL RFNIQRGVW IPKSFNLERI KENFQIFDFS LTEEEMKDIE ALNKNVRFVE LLMWRDHPEY PFHDEY
Tag:	His-tag
Predicted MW:	39.5 kDa
Concentration:	lot specific
Purity:	>90%
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 20% glycerol, 100 mM NaCl
Bioactivity:	Specific: > 1.0 units/mg (please enquire for specific batch value). Enzymatic activity was confirmed by measuring the amount of enzyme catalyzing the oxidation of 1 micromole NADPH/min at 25°C. (Activity assay see "Protocol").
Preparation:	Liquid purified protein



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Applications:	<p>Protocol: Activity assay:</p> <ol style="list-style-type: none">1. Prepare a 1 ml reaction mix into a suitable container: The final concentrations are 0.1M sodium phosphate (pH7.0), 10mM DL-glyceraldehyde, 0.3mM NADPH.2. Add 50ul of recombinant AKR1D1 protein solution with various concentrations (1ug, 2ug) in 750ul reaction buffer.3. Mix by inversion and incubate at 25°C for 2.5 minutes.4. Add 200ul of 50 mM DL-glyceraldehyde as a substrate and immediately mix by inversion.5. Record the decrease in A340nm for 3 minutes.
Protein Description:	Recombinant human AKR1D1 protein, fused to His-tag at N-terminus, 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_001177835
Locus ID:	6718
UniProt ID:	P51857
Cytogenetics:	7q33
Synonyms:	3o5bred; CBAS2; SRD5B1
Summary:	The enzyme encoded by this gene is responsible for the catalysis of the 5-beta-reduction of bile acid intermediates and steroid hormones carrying a delta(4)-3-one structure. Deficiency of this enzyme may contribute to hepatic dysfunction. Three transcript variants encoding different isoforms have been found for this gene. Other variants may be present, but their full-length natures have not been determined yet. [provided by RefSeq, Jul 2010]
Protein Families:	<p>Protocol: Activity assay:</p> <ol style="list-style-type: none">1. Prepare a 1 ml reaction mix into a suitable container: The final concentrations are 0.1M sodium phosphate (pH7.0), 10mM DL-glyceraldehyde, 0.3mM NADPH.2. Add 50ul of recombinant AKR1D1 protein solution with various concentrations (1ug, 2ug) in 750ul reaction buffer.3. Mix by inversion and incubate at 25°C for 2.5 minutes.4. Add 200ul of 50 mM DL-glyceraldehyde as a substrate and immediately mix by inversion.5. Record the decrease in A340nm for 3 minutes.
Protein Pathways:	Androgen and estrogen metabolism, C21-Steroid hormone metabolism, Metabolic pathways, Primary bile acid biosynthesis

Product images: