

Product datasheet for **AR09377PU-L**

AKR7A2 (1-359, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	AKR7A2 (1-359, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MRGSHHHHHH</u> GMASMTGGQQ MGRDLYDDDD KDRWGSELEM LSAASRVVSR AAVHCALRSP PPEARALAMS RPPPPRVASV LGTMEMGRRM DAPASAAVR AFLERGHTEL DTAFMYS DGQ SETILGGLGL GLGGDCRVK IATKANPWDG KSLKPDSVRS QLETSKRLQ CPQVDLFY LH APDHGTPVEE TLHACQRLHQ EGKFVELGLS NYASWEVAEI CTLCKSNGWI LPTVYQGMYN ATTRQVETEL FPCLRHFLGR FYAYNPLAGG LLTGKYKYED KDGKQPVGRF FGNSWAET YR NRFWKEHHFE AIALVEKALQ AAYGASAPSV TSAALRW MYH HSQ LQGAHGD AVILGMSSLE QLEQNLAATE EGPLEPAVVD AFNQAWHLVA HECPNYFR
Tag:	His-tag
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 0.25-0.3 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 AKR7A2 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 AKR7A2 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_001307908
Locus ID:	8574
UniProt ID:	B4DZX4
Cytogenetics:	1p36.13
Synonyms:	AFAR, AFAR1, AKR7, AFB1 aldehyde reductase 1, AFB1-AR 1, Aldoketoreductase 7, SSA reductase
Summary:	The protein encoded by this gene belongs to the aldo/keto reductase (AKR) superfamily and AKR7 family, which are involved in the detoxification of aldehydes and ketones. The AKR7 family consists of 3 genes that are present in a cluster on the p arm of chromosome 1. This protein, thought to be localized in the golgi, catalyzes the NADPH-dependent reduction of succinic semialdehyde to the endogenous neuromodulator, gamma-hydroxybutyrate. It may also function as a detoxication enzyme in the reduction of aflatoxin B1 and 2-carboxybenzaldehyde. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016]
Protein Families:	Druggable Genome

Product images:

