

Aldo-Keto Reductase Family 7 Member A2 Active Protein | AKR7A2 active protein

Recombinant Human Aldo-Keto Reductase Family 7 Member A2

CATALOG # AAA38659	HOST Escherichia Coli.
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PRODUCT SYNONYMS

Aldo-Keto Reductase Family 7 Member A2; Recombinant Human Aldo-Keto Reductase Family 7 Member A2; Aflatoxin B1 aldehyde reductase member 2; AFAR; AFAR1; AFB1-AR1; AKR7; Succinic semialdehyde reductase; SSA reductase; AFB1 aldehyde reductase 1; Aldoketoreductase 7; AKR7A2; AKR7A2 active protein

PRODUCT SPECIFICATIONS

Host	Escherichia Coli.
Purity/Purification	Greater than 90.0% as determined by SDS-PAGE.
Form/Format	The AKR7A2 solution contains 20mM Tris-HCl pH-8, 1mM DTT and 20% glycerol.
Sequence	MRGSHHH HHHGMASMTG GQQMGRDLYD DDDKDRWGSE LEMLSA ASRVVSRAAV HCALRSPPE ARALAMSPPP PPRVASVLGT MEMGRRMDAP ASAAVRAFL ERGHTELDTA FMYS DGQSET ILGGLGLGLG GGDCRVKIAT KANPWDGKSL KPDSVRSQLE TSLKRLQCPQ VDLFY LHAPD HGTPVEETLH ACQRLHQEGK FVELGLSNYA SWEVAEICTL CKSNGWILPT VYQGMYNATT RQVETELFPC LRHFGLRFYA YNPLAGLLT GKYKYEDKDG KQPVGRFFGN SWAETYRNRW WKEHHFEAIA LVEKALQAAY GASAPSVTSA ALRWMYHHSQ LQGAHGDAVI LGMSSLEQLE QNLAATEEGP LEPAVVDAFN QAWHLVAHEC PNYFR
Sequence Length	359
Physical Appearance	Sterile filtered clear colorless solution 0.5 mg/ml
Biological Activity	Specific activity: approximately 0.25-0.3 units/mg. Enzymatic activity was confirmed by measuring the amount of enzyme catalyzing the oxidation of 1 micromole NADPH per minute at 25C. Specific activity was expressed as units/mg protein.
Preparation and Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for AKR7A2 active protein	<p>Description: AKR7A2 Human Recombinant fused to a 39 amino acid His Tag at N-terminal produced in E Coli is a single, non-glycosylated, polypeptide chain containing 398 amino acids (1-359 a.a) and having a molecular mass of 44 kDa. The AKR7A2 is purified by proprietary chromatographic techniques.</p> <p>Introduction: AKR7A2 participates in the detoxification of aldehydes and ketones. AKR7A2 catalyzes the NADPH-dependent reduction of succinic semialdehyde to gamma-hydroxybutyrate. AKR7A2 is involved in producing the neuromodulator gamma-hydroxybutyrate (GHB). AKR7A2 has extensive substrate specificity. AKR7A2 shows NADPH-dependent aldehyde reductase activity towards 2-carboxybenzaldehyde, 2-nitrobenzaldehyde and pyridine-2-aldehyde (in vitro). AKR7A2 reduces 1,2-naphthoquinone and 9,10-phenanthrenequinone (in vitro). AKR7A2 reduces the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. AKR7A2 takes part in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen.</p>
Product Categories/Family for AKR7A2 active protein	Enzymes; Reductase

NCBI AND UNIPROT INFORMATION

NCBI GI #	41327764
NCBI GeneID	8574
NCBI Accession #	NP_003680.2
NCBI GenBank Nucleotide #	NM_003689.3
UniProt Accession #	O43488; O75749; Q5TG63
NCBI Official Full Name	aflatoxin B1 aldehyde reductase member 2
NCBI Official Synonym Full Names	aldo-keto reductase family 7, member A2 (aflatoxin aldehyde reductase)
NCBI Official Symbol	AKR7A2
NCBI Official Synonym Symbols	AFAR; AKR7; AFAR1; AFB1-AR1
NCBI Protein Information	aflatoxin B1 aldehyde reductase member 2; AFB1 aldehyde reductase 1; AFB1-AR 1; HEL-S-166mP; SSA reductase; aflatoxin beta1 aldehyde reductase; aldoketoreductase 7; epididymis secretory sperm binding protein Li 166mP; succinic semialdehyde reductase
UniProt Protein Name	Aflatoxin B1 aldehyde reductase member 2
UniProt Gene Name	AKR7A2
UniProt Synonym Gene Names	AFAR; AFAR1; AKR7; AFB1-AR 1; SSA reductase
UniProt Entry Name	ARK72_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/escherichia-coli-akr7a2-active-protein/aldo-keto-reductase-family-7-member-a2/38659>