

AKR7A2 active protein

AKR7A2, 1-359aa, Human, His tag, E. coli (Bioactivity Validated)

CATALOG # AAA48568	HOST E Coli	APPLICATIONS SDS-Page
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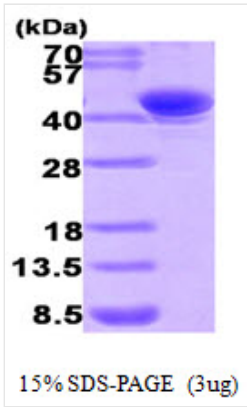
PRODUCT SYNONYMS

AKR7A2; 1-359aa; Human; His tag; E. coli (Bioactivity Validated); aldo-keto reductase family 7 member A2; Aflatoxin B1 aldehyde reductase member 2; AFAR; AFAR1; AFB1-AR1; AKR7; aldo-keto reductase family 7; member A2 AFB1 AR1; AFB1AR1; aflatoxin aldehyde reductase; aflatoxin beta1 aldehyde reductase; Aiar; aldo keto reductase family 7; member A2; aldoketoreductase 7.; AKR7A2 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 90% by SDS-PAGE
Form/Format	Liquid. In 20mM Tris-HCl Buffer (pH 8.0) containing 1mM DTT, 20% glycerol
Concentration	0.5 mg/ml (determined by Bradford assay) (varies by lot)
Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSELEM LSAASRVVSR AAVHCALRSP PPEARALAMS RPPPPRVASV LGTMEMGRRM DAPASAAVR AFLERGHTL DTAFMYSDGQ SETILGGLGL GLGGGDCRVK IATKANPWDG KSLKPDSVRS QLETSLKRLQ CPQVDLFYLH APDHGTPVEE TLHACQRLHQ EGKFVELGLS NYASWEVAEI CTLCKSNGWI LPTVYQGMYN ATTRQVETEL FPCLRHFGLR FYAYNPLAGG LLTGKYKYED KDGKQPVGRF FGNSWAETYR NRFWKEHHFE AIALVEKALQ AAYGASAPSV TSAALRWMYH HSQLQGAHGD AVILGMSSLE QLEQNLAATE EGPLEPAVVD AFNQAHLVA HECPNYFR
Sequence Length	359
Applicable Applications for AKR7A2 active protein	SDS-PAGE
Antigen Species	Human
Tag Information	His-tag
Biological Activity	Specific activity is > 1000 pmol/min/ug, and is defined as the amount of enzyme that catalyze the reduction 1.0 pmole of 1,2-Naphthoquinone presence of NADPH per minute at pH 7.0 at 25C.
Preparation and Storage	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for AKR7A2 active protein	Aldo-keto reductases, such as AKR7A2, are involved in the detoxification of aldehydes and ketones. This protein can reduce the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the nonbinding AFB1 dialcohol. It may be involved in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen. Also, it has been proposed previously to catalyze the NADPH-dependent reduction of succinic semialdehyde (SSA) to gamma-Hydroxybutyrate in human brain. Recombinant AKR7A2 protein was expressed in E Coli and purified by using conventional chromatography techniques.
Product Categories/Family for AKR7A2 active protein	Redox Proteins
References	Bodreddigari S., et al. (2008) Chem Res Toxicol. 21 (5):1134-42.; Malaspina P., et al. (2009) Hum Genomics. 3 (2):106-20.

NCBI AND UNIPROT INFORMATION

NCBI GI #	41327764
NCBI GeneID	8574
NCBI Accession #	NP_003680
NCBI GenBank Nucleotide #	NM_003689.3
UniProt Accession #	O43488; O75749; Q5TG63
Molecular Weight	44.0kDa (398aa), confirmed by MALDI-TOF.
NCBI Official Full Name	aflatoxin B1 aldehyde reductase member 2 isoform 1
NCBI Official Synonym Full Names	aldo-keto reductase family 7 member A2
NCBI Official Symbol	AKR7A2
NCBI Official Synonym Symbols	AFAR; AKR7; AFAR1; AFB1-AR1
NCBI Protein Information	aflatoxin B1 aldehyde reductase member 2
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

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.

