Aflatoxin B1 Aldehyde Reductase Member 4 (AKR7L) Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	Aflatoxin B1 aldehyde reductase member 4 (AKR7L), Recombinant Protein
Full Product Name	Recombinant Human Aflatoxin B1 aldehyde reductase member 4 (AKR7L)
Product Gene Name	AKR7L recombinant protein
Product Synonym Gene Name	AKR7L
Sequence	MSRQLSRARP ATVLGAMEMG RRMDAPTSAA VTRAFLERGH TEIDTAFLYS DGQSETILGG LGLRMGSSDC RVKIATKANP WIGNSLKPDS VRSQLETSLK RLQCPUVDLF YLHAPDHSAP VEETLRACHQ LHQEGKFVEL GLSNYAAWEV AEICTLCKSN GWILPTVYQG MYSATTRQVE TELFPCLRHF GLRFYAYNPL AGGLLTGKYK YEDKDGKQPV GRFFGTQWAE IYRNHFWKEH HFEGIALVEK ALQAAYGASA PSMTSAALRW MYHHSQLQGA HGDAVILGMS SLEQLEQNLA AAEEGPLEPA VVDAFNQAWH LFAHECPNYF I
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	16,724 Da
Sequence Positions	1-331, Full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
OMIM	608478
3D Structure	ModBase 3D Structure for Q8NHP1
Species	Human
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for AKR7L recombinant protein	This gene is one of three aldo-keto reductase genes that are present in a cluster on the p arm of chromosome 1. The encoded proteins are involved in the reduction of the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. This family member encodes a selenoprotein, which contains a selenocysteine (Sec) residue. The selenocysteine is encoded by a UGA codon that normally signals translational termination. Selenoprotein genes have a common stem-loop structure, the sec insertion sequence (SECIS), that is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. Two transcript variants encoding different isoforms have been identified for this gene.
Other Notes	Small volumes of AKR7L recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for AKR7L purchase	MBS1336270 is a recombinant protein targeting AKR7L. Also known as Recombinant Human Aflatoxin B1 aldehyde reductase member 4 (AKR7L). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AKR7L. It may not necessarily be applicable to this product.

NCBI GI #	1139695540
NCBI GeneID	246181
NCBI Accession #	NP_001335350.1
UniProt Primary Accession #	Q8NHP1
UniProt Secondary Accession #	Q5U614
UniProt Related Accession #	Q8NHP1
GenBank Nucleotide #	NM_001348421.1
NCBI Official Full Name	aflatoxin B1 aldehyde reductase member 4
NCBI Official Synonym Full Names	aldo-keto reductase family 7 like (gene/pseudogene)
NCBI Official Symbol	AKR7L
NCBI Official Synonym Symbols	AFAR3; AKR7A4; AFB1-AR3; AFB1-AR 3
UniProt Protein Name	Aflatoxin B1 aldehyde reductase member 4
UniProt Synonym Protein Names	AFB1 aldehyde reductase 3; AFB1-AR 3; Aldoketoreductase 7-like
Protein Family	Aflatoxin B1 aldehyde reductase
UniProt Gene Name	AKR7L
UniProt Synonym Gene Names	AFAR3; AKR7A4; AFB1-AR 3
NCBI Protein Information	aflatoxin B1 aldehyde reductase member 4
NCBI Summary for AKR7L	This gene is one of three aldo-keto reductase genes that are present in a cluster on the p arm of chromosome 1. The encoded proteins are involved in the reduction of the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. It has been speculated that this family member encodes a selenoprotein, which includes a selenocysteine (Sec) residue in lieu of a UGA translational termination codon. However, there is no evidence that such a protein is produced in vivo. The alternative interpretation is that this family member is a segregating pseudogene, where some individuals have an allele that encodes a functional enzyme, while other individuals have an allele encoding a protein that is predicted to be non-functional. [provided by RefSeq, Feb 2017]
UniProt Comments for AKR7L	Can reduce the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. May be involved in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen ().
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