

Recombinant Human AKR1A1 protein, His-tagged

Cat. No. AKR1A1-129H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human AKR1A1(1-325aa) fused with His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-325aa
Description	Alcohol dehydrogenase [NADP+] (AKR1A1) is a member of the aldo/keto reductase superfamily and catalyzes the NADPH-dependent reduction of a variety of aromatic and aliphatic aldehydes to their corresponding alcohols. This protein is closely related (65% identity) to aldose reductase, an enzyme involved in the pathogenesis of some diabetic and galactosemic complications. It plays a role in the activation of procarcinogens, such as polycyclic aromatic hydrocarbon trans-dihydrodiols, and in the metabolism of various xenobiotics and drugs, including the anthracyclines doxorubicin (DOX) and daunorubicin (DAUN). Recombinant human Alcohol dehydrogenase was expressed in E. coli and purified by using conventional chromatography techniques.
Form	Supplied as a liquid in 20mM Tris-HCl (pH8.0)50mM NaCl, 10% glycerol.
Molecular Mass	36.5 kDa
AA Sequence	MAASCVLLHT GQKMPLIGLG TWKSEPGQVK AAVKYALSVG YRHIDCAAIIY GNEPEIGEAL KEDVGP GKAV PREELFVTSK LWNTKHHPED VEPALRKTLA

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

DLQLEYLDLY LMHWPYAFER GDNPPFPKNAD GTICYDSTHY KETWKALEAL
 VAKGLVQALG LSNFNRSRQID DILSVASVRPAVLQVE CHPY LAQNELIAHC
 QARGLEVTAY SPLGSSDRAW RDPDEPVLL EPPVVLALAEK YGRSPAQILL
 RWQVQRKVIC IPKSITPSRI LQNIKVFDFE FSPEEMKQLN ALNKNWRYIV
 PMLTVDGKRV PRDAGHPLYP FNDPY

Purity Affinity Purified~90% (SDS-PAGE) Purified by immunoaffinity chromatography.

Notes Small volumes of alcohol dehydrogenase recombinant protein 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.

Storage Aliquot to avoid repeated freezing and thawing and freeze at -70 centigrade. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquots are stable for at least 6 months.

GENE INFORMATION

Gene Name [AKR1A1 aldo-keto reductase family 1, member A1 \(aldehyde reductase\) \[Homo sapiens \]](#)

Official Symbol [AKR1A1](#)

Synonyms AKR1A1; aldo-keto reductase family 1, member A1 (aldehyde reductase); alcohol dehydrogenase [NADP(+)]; ALR; DD3; dihydrodiol dehydrogenase 3; aldehyde reductase; alcohol dehydrogenase; aldo-keto reductase family 1 member A1; ARM; ALDR1; MGC1380; MGC12529;

Gene ID [10327](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

mRNA Refseq	NM_001202414
Protein Refseq	NP_001189343
MIM	103830
UniProt ID	P14550
Chromosome Location	1p33-p32
Pathway	Glycerolipid metabolism, organism-specific biosystem; Glycerolipid metabolism, conserved biosystem; Glycolysis / Gluconeogenesis, organism-specific biosystem; Glycolysis / Gluconeogenesis, conserved biosystem; Metabolic pathways, organism-specific biosystem; tryptophan degradation X (mammalian, via tryptamine), organism-specific biosystem;
Function	L-glucuronate reductase activity; alditol:NADP+ 1-oxidoreductase activity; electron carrier activity; oxidoreductase activity;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA