

Recombinant human Aldo-keto reductase 1B1/AKR1B1 protein

Catalog Number: ALR0901

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-316aa

UniProt No.

P15121

NCBI Accession No.

NP_001619.1

Alternative Names

Aldo-keto reductase family1 member B1, AKR1B1, ADR, ALDR1, ALR2, AR, Aldose reductase, AKR1B 1, Aldehyde reductase, aldr 1, aldr-1, Lii5-2 CTCL tumor antigen, low Km aldose reductase

PRODUCT SPECIFICATION

Molecular Weight

35.8 kDa (316aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is >800pmol/min/ug, and is defined as the amount of enzyme that catalyze the reduction of 1.0pmole DL-glyceraldehyde in the presence of NADPH per minute at pH7.0 at 37C.

Tag

Non-Tagged

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Aldose reductase (AKR1B1) is a member of the aldol-keto reductase (AKR) superfamily and catalyzes the NADPH-dependent reduction of a wide variety of carbonyl-containing compounds to their corresponding alcohols. This protein is implicated in the development of diabetic complications by catalyzing the reduction of glucose to sorbitol. Recombinant Aldose reductase (AKR1B) protein was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

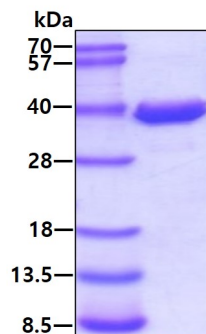
MASRLLLNNG AKMPILGLGT WKSPPGQVTE AVKVAIDVGY RHIDCAHVYQ NENEVGVAIQ EKLREQVVKR EELFIVSKLW CTYHEKGLVK GACQKTLSDL KLDYLDLYLI HWPTGFKPGK EFFPLDESGN VVPSDTNILD TWAAMEELVD EGLVKAIGIS NFNHLQVEMI LNKPGLKYKP AVNQIECHPY LTQEKLIQYC QSKGIVVTAY SPLGSPDRPW AKPEDPSLLE DPRIKAIKAAK HNKTTAQVLI RFPMQRNLVV IPKSVTPERI AENFKVDFE LSSQDMTLL SYNRNWRVCA LLSCTSHKDY PFHEEF

General References

Ruiz FX., et al: (2009) Chem Biol Interact.178(1-3)
Donaghue KC., et al: Diabet Med. 22(10):1315-20

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.