Recombinant human Aldo-keto Reductase 1B10/AKR1B10 protein

Catalog Number: ATGP0314

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-316aa

UniProt No.
O60218

NCBI Accession No.
NP_064695

Alternative Names
Aldo-keto reductase family 1 member B10, AKR1B11, AKR1B12, ALDRLn, ARL-1, ARL1, HIS, AKR1B10, Aldose reductase like, Aldose reductase related protein, ARL 1, hARP, SI reductase, Small intestine reductase

PRODUCT SPECIFICATION

Molecular Weight
36 kDa (316aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

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

Purity
> 95% by SDS-PAGE

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

Biological Activity
Specific activity is > 1,500pmol/min/ug, and was obtained by measuring the decrease of NADP in absorbance at 340nm resulting from NADPH at pH 7.0 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

AKR1B10, also known as Aldo-keto reductase family 1, member B10, AKR1B10 is a monomeric protein that efficiently catalyzes the reduction of aromatic and aliphatic aldehydes and ketones. AKR1B10 is ubiquitously expressed in many human tissues but is highly expressed in small intestine, colon and adrenal gland. This protein is pathogenically involved in diabetic complications and has been reported that AKR1B10 is overexpressed in human tumors, such as liver, breast, and lung cancer, and may play a critical role in the development and progression of cancer. Recombinant human AKR1B10 protein was expressed in E. coli and purified by using conventional chromatography.

Amino acid Sequence

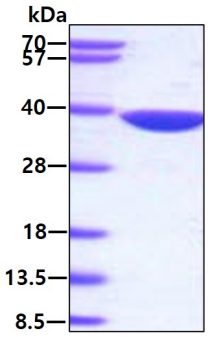
MATFVELSTK AKMPIVGLGT WKSPLGKVKE AVKVAIDAGY RHIDCAYVYQ NEHEVGEAIQ EKIQEKAVKR EDLFIVSKLW PTFFERPLVR KAFEKTLKDL KLSYLDVYLI HWPQGFKSGD DLFPKDDKGN AIGGKATFLD AWEAMEELVD EGLVKALGVS NFSHFQIEKL LNKPGLKYKP VTNQVECHPY LTQEKLIQYC HSKGITVTAY SPLGSPDRPW AKPEDPSLLE DPKIKEIAAK HKKTAAQVLI RFHIQRNVIV IPKSVTPARI VENIQVFDFK LSDEEMATIL SFNRNWRACN VLQSSHLEDY PFDAEY

General References

Yabe D., et al. (1997) J Biol Chem. 272(29):18232-9.
Vorum H., et al. (1998) Biochim Biophys Acta. 1386(1):121-31.

DATA

SDS-PAGE



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