

Recombinant human DCXR protein

Catalog Number: ATGP3527

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-244aa

UniProt No.

Q7Z4W1

NCBI Accession No.

NP_057370

Alternative Names

Carbonyl reductase II, DCR, Dicarbonyl/L-xylulose reductase, HCR 2, HCR II, KIDCR, Kidney dicarbonyl reductase, L-xylulose reductase, P34H, Sperm surface protein P34H, XR

PRODUCT SPECIFICATION

Molecular Weight

28 kDa (264aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 50mM NaCl

Purity

> 95% by SDS-PAGE

Biological Activity

Specific activity is > 1,800pmol/min/ug and is defined as the amount of enzyme that oxidize 1pmole of xylitol to L-xylulose per minute at pH 10.0 at 37C.

Tag

His-Tag

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.

BACKGROUND

Description

Dicarbonyl/L-xylulose reductase, also known as DCXR, is an enzyme responsible for the metabolism of xylulose, converting it into xylitol. DCXR was expressed at low levels and was localized predominantly in the cytoplasmic

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membrane. In contrast, in virtually all grades of early-stage prostate cancer and in all chemohormonally treated cases, DCXR was strikingly overexpressed and was localized predominantly in the cytoplasm and nucleus. Recombinant human DCXR, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

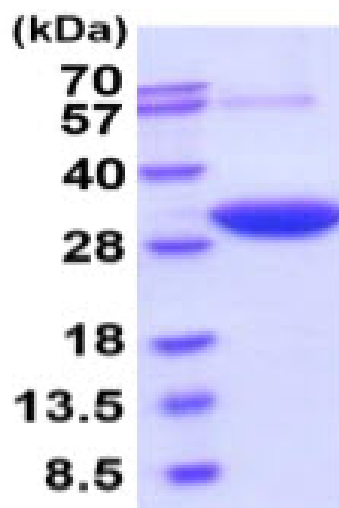
MGSSHHHHHH SGLVPRGSH MELFLAGRRV LVTGAGKGIG RGTVQALHAT GARVVAVSRT QADLDSLVRE CPGIEPVCVD
LGDWEATERA LGSVGPVDLL VNNAAVALLQ PFLEVTKEAF DRSFEVNLRA VIQVSQIVAR GLIARGVPGA IVNVSSQCSQ
RAVTNHSVYC STKGALDMLT KVMALDELGPH KIRVNAVNPV VVMTSMGQAT WSDPHKAKTM LNRIPLGKFA EVEHVVNAIL
FLLSDRSGMT TGSTLPVEGG FWAC

General References

Cho Veqa JH., et al. (2007) *Cancer Epidemiol Biomarkers Prev.* 16(12):2615-22.
Nakaqawa J., et al. (2002) *J Biol Chem.* 277(20):17883-91.

DATA

SDS-PAGE



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

15% SDS-PAGE (3 μ g)