Recombinant E.coli D-lactate dehydrogenase/LDHA protein

Catalog Number: ATGP3236

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-329aa

UniProt No.
P52643

NCBI Accession No.
NP_415898.1

Alternative Names
NAD-dependent, JW1375, htpH, hslI, hslF, Fermentative D-lactate dehydrogenase, ECK1377

PRODUCT SPECIFICATION

Molecular Weight
39.1 kDa (353aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 100mM NaCl

Purity
> 95% by SDS-PAGE

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

Biological Activity
Specific activity is > 200unit/mg, in which one unit will convert 1.0 umole of pyruvate to L-lactate and beta-NAD per minute at pH 7.5 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

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Description

Idha, also known as D-lactate dehydrogenase, belongs to the D-isomer specific 2-hydroxyacid dehydrogenase family. In enzymology, a D-lactate dehydrogenase (cytochrome) is an enzyme that catalyzes the chemical reaction. Thus, the two substrates of this enzyme are (D) -lactate and ferricytochrome c, whereas its two products are pyruvate and ferrocytochrome c. Recombinant E. coli IdhA protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

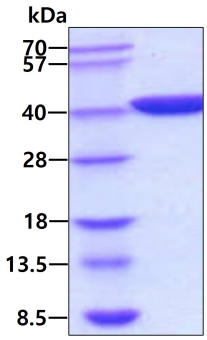
<MGSSHHHHHH SSGLVPRGSH MGSH>MKLAVY STKQYDKKYL QQVNESFGFE LEFFDFLLTE KTAKTANGCE AVCIFVNDDG SRPVLEELKK HGVKYIALRC AGFNNVDLDA AKELGLKVVR VPAYDPEAVA EHAIGMMMTL NRRIHRAYQR TRDANFSLEG LTGFTMYGKT AGVIGTGKIG VAMLRILKGF GMRLLAFDPY PSAAALELGV EYVDLPTLFS ESDVISLHCP LTPENYHLLN EAAFEQMKNG VMIVNTSRGA LIDSQAAIEA LKNQKIGSLG MDVYENERDL FFEDKSNDVI QDDVFRRLSA CHNVLFTGHQ AFLTAEALTS ISQTTLQNLS NLEKGETCPN ELV

General References

Atlante, A., et al. (2005) Biochim. Biophys. Acta 1708 (1): 13-22.
Martin Engqvist, et al. (2009) J Biol Chem. 284 (September 11): 25026-25037.

DATA

SDS-PAGE



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