Recombinant human ALAD protein

Catalog Number: ATGP1444

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-330aa

UniProt No.
P13716

NCBI Accession No.
NP_000022

Alternative Names
Delta-aminolevulinic acid dehydratase, ALADH, PBGS

PRODUCT SPECIFICATION

Molecular Weight
38.8 kDa (354aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol 0.1M NaCl

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

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
The ALAD enzyme is composed of 8 identical subunits and catalyzes the condensation of 2 molecules of delta-aminolevulinate to form porphobilinogen (a precursor of heme, cytochromes and other hemoproteins). ALAD catalyzes the second step in the porphyrin and heme biosynthetic pathway; zinc is essential for enzymatic activity. ALAD enzymatic activity is inhibited by lead and a defect in the ALAD structural gene can cause increased sensitivity to lead poisoning and acute hepatic porphyria. Recombinant human ALAD protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

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Amino acid Sequence

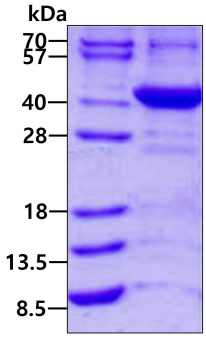
<MGSSHHHHHH SSGLVPRGSH MGSH>MQPQSV LHSGYFHPLL RAWQTATTTL NASNLIYPIF VTDVPDDIQP ITSLPGVARY GVKRLEEMLR PLVEEGLRCV LIFGVPSRVP KDERGSAADS EESPAIEAIH LLRKTFPNLL VACDVCLCPY TSHGHCGLLS ENGAFRAEES RQRLAEVALA YAKAGCQVVA PSDMMDGRVE AIKEALMAHG LGNRVSVMSY SAKFASCFYG PFRDAAKSSP AFGDRRCYQL PPGARGLALR AVDRDVREGA DMLMVKPGMP YLDIVREVKD KHPDLPLAVY HVSGEFAMLW HGAQAGAFDL KAAVLEAMTA FRRAGADIII TYYTPQLLQW LKEE

General References

Li,C.. et al. (2011) Toxicol. Lett. 203 (1), 48-53
van Bemmel et al. (2011) Epidemiology 22 (2), 273-278

DATA

SDS-PAGE



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