
Product Data Sheet

Product Name: ALAD Human
 Cat. No.: GP21384
 Batch No.: 1

Product Data

Purity	>98%	Source	E.coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Aminolevulinate delta-dehydratase; ALADH; PBGS; Porphobilinogen synthase; delta-aminolevulinic acid dehydratase; EC 4.2.1.24.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMQPQSV LHSYGFHPLL 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 TTYTPQLLQW LKEE.		
Formulation	The ALAD solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 100mM NaCl and 10% glycerol.		

Introduction

ALAD form porphobilinogen (a precursor of heme, cytochromes and other hemoproteins) by catalyzing the compression of 2 molecules of delta-aminolevulinate. ALAD catalyzes the second step in the porphyrin and heme biosynthetic pathway; zinc is vital for enzymatic activity. ALAD has 8 identical subunits and its enzymatic activity is inhibited by lead. Mutations in the ALAD structural gene are the source for high sensitivity to lead poisoning and acute hepatic porphyria.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Background

ALAD Human Recombinant produced in E. coli is a single polypeptide chain containing 354 amino acids (1-330) and having a molecular mass of 38.8kDa. ALAD is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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