

Recombinant Human ALAD, His-tagged

Cat. No. ALAD-26880TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 1-226 of Human ALAD with N terminal His tag; MWt 26kDa.
Species	Human
Source	E.coli
ProteinLength	1-226 a.a.
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.
Conjugation	HIS
Form	Lyophilised:Reconstitute with 109 µl aqua dest.
Storage buffer	Preservative: None Constituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5
Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.

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Sequences of amino acids

MQPQSVLHSGYFHPLLRAWQTATTTLNASNLIYPIFVTDV PDDIQPITSLPGVARYGV
 KRLEEMLRPLVEEGLRCVLI FGVPSRVPKDERGSAADSEESPAIEAIHLLRKTFFNLL
 VACDVCLCPYTSHGHCGLLSENGAFRAEESRQLAEVA LAYAKAGCQVVAPSDMM
 DGRVEAIKEALMAHGLGNRV SVM SYSAKFASCFYGPFRDAAKSSPAFGDRRCYQL

GENE INFORMATION

Gene Name [ALAD aminolevulinate dehydratase \[Homo sapiens \]](#)

Official Symbol [ALAD](#)

Synonyms

ALAD; aminolevulinate dehydratase; aminolevulinate, delta , dehydratase; delta-aminolevulinic acid dehydratase; ALADH; PBGS; porphobilinogen synthase;

Gene ID [210](#)

mRNA Refseq [NM_000031](#)

Protein Refseq [NP_000022](#)

MIM [125270](#)

Uniprot ID [P13716](#)

Chromosome Location 9q32

Pathway

Heme Biosynthesis, organism-specific biosystem; Heme biosynthesis, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of porphyrins, organism-specific biosystem;

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Function

catalytic activity; identical protein binding; lead ion binding; lyase activity;
porphobilinogen synthase activity;

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