ALAD Blocking Peptide

PRODUCT OVERVIEW

Product Name	ALAD, Blocking Peptide
Full Product Name	ALAD Blocking Peptide
Product Gene Name	ALAD blocking peptide
Product Synonym Names	ALAD; ALADH; ALADR; Aminolevulinate dehydratase; Aminolevulinate, delta, dehydratase; Delta aminolevulinic acid dehydratase; Delta-aminolevulinic acid dehydratase; HEM2_HUMAN; Lv; MGC5057; OTTMUSP00000009376; OTTMUSP00000009377; PBGS; Porphobilinogen synt
Antibody/Peptide Pairs	ALAD peptide (MBS9632268) is used for blocking the activity of ALAD antibody (MBS9629885)
Molecular Weight	36,295 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (116148592..116163618, complement). Location: 9q33.1
OMIM	125270
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for ALAD blocking peptide	MBS9632268 is a blocking peptide targeting ALAD.
Other Notes	Small volumes of ALAD blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ALAD. It may not necessarily be applicable to this product.

NCBI GI #	119607786
NCBI GeneID	210
NCBI Accession #	EAW87380.1
UniProt Primary Accession #	P13716
UniProt Secondary Accession #	Q16870; Q16871; Q9BVQ9; A8K375; B2R6F2
UniProt Related Accession #	P13716
NCBI Official Full Name	aminolevulinate, delta-, dehydratase, isoform CRA_a
NCBI Official Synonym Full Names	aminolevulinate dehydratase
NCBI Official Symbol	ALAD
NCBI Official Synonym Symbols	PBGS; ALADH
UniProt Protein Name	Delta-aminolevulinic acid dehydratase
UniProt Synonym Protein Names	Porphobilinogen synthase
Protein Family	Aladin

UniProt Gene Name	ALAD
UniProt Synonym Gene Names	ALADH
UniProt Entry Name	HEM2_HUMAN
NCBI Protein Information	delta-aminolevulinic acid dehydratase; porphobilinogen synthase; aminolevulinate, delta-, dehydratase
NCBI Summary for ALAD	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. [provided by RefSeq, Jul 2008]
UniProt Comments for ALAD	ALAD: Catalyzes an early step in the biosynthesis of tetrapyrroles. Binds two molecules of 5-aminolevulinate per subunit, each at a distinct site, and catalyzes their condensation to form porphobilinogen. Defects in ALAD are the cause of acute hepatic porphyria (AHEPP). A form of porphyria. Porphyrias are inherited defects in the biosynthesis of heme, resulting in the accumulation and increased excretion of porphyrins or porphyrin precursors. They are classified as erythropoietic or hepatic, depending on whether the enzyme deficiency occurs in red blood cells or in the liver. AHP is characterized by attacks of gastrointestinal disturbances, abdominal colic, paralysis, and peripheral neuropathy. Most attacks are precipitated by drugs, alcohol, caloric deprivation, infections, or endocrine factors. Belongs to the ALADH family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 4.2.1.24; Cofactor and Vitamin Metabolism - porphyrin and chlorophyll; Lyase Chromosomal Location of Human Ortholog: 9q33.1 Cellular Component: cytosol; nucleus Molecular Function: identical protein binding; porphobilinogen synthase activity; zinc ion binding; lead ion binding; catalytic activity Biological Process: porphyrin metabolic process; protoporphyrinogen IX biosynthetic process; protein homooligomerization; heme biosynthetic process Disease: Porphyria, Acute Hepatic
Research Articles on ALAD	**1.** Workers with the ALAD 1-1 genotype were associated with higher blood lead levels than those with the ALAD 1-2 genotype.
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