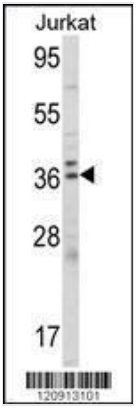
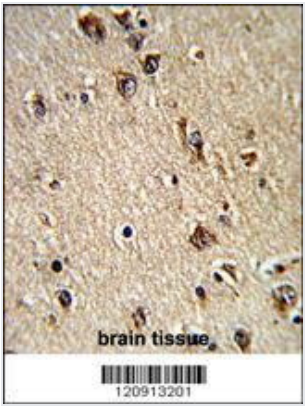
ALAD Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

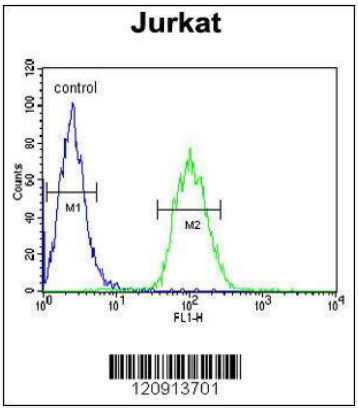
Product Name	ALAD, Polyclonal Antibody
Full Product Name	ALAD, CT (Delta-aminolevulinic Acid Dehydratase, ALADH, Porphobilinogen Synthase) (MaxLight 490)
Product Gene Name	anti-ALAD antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Ammonium Sulfate Precipitation.
Specificity	Recognizes human ALAD.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	39,034 Da
OMIM	125270
3D Structure	ModBase 3D Structure for P13716
Immunogen	Synthetic peptide between corresponding to a portion of amino acids within aa251-280 from the C-terminal region of human ALAD, KLH conjugated (P13716).
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-ALAD antibody	Antibodies; Enzymes; Synthase
Applications Tested/Suitable for anti-ALAD antibody	Flow Cytometry (FC/FACS), Western Blot (WB), Immunohistochemistry (IHC) Paraffin
Application Notes for anti-ALAD antibody	FC/FACS: 1:10-1:50 WB: 1:1000 IHC-P: 1:50-1:100 Applications are based on unconjugated antibody.
Related Product Information for anti-ALAD antibody	MBS6461747 is an antibody targeting ALAD. Also known as ALAD, CT (Delta-aminolevulinic Acid Dehydratase, ALADH, Porphobilinogen Synthase) (MaxLight 490). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-ALAD antibody	1. Guey, L.T., et.al., Eur. Urol. (2009).
Other Notes	Small volumes of anti-ALAD antibody 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.



Western Blot (WB) of anti-ALAD antibody
Western blot analysis of ALAD Antibody (C-term) in Jurkat cell line lysates (35ug/lane). ALAD (arrow) was detected using the purified Pab.



Immunohistochemistry (IHC) of anti-ALAD antibody
Formalin-fixed and paraffin-embedded human brain tissue reacted with ALAD Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow Cytometry (FC/FACS) of anti-ALAD antibody
ALAD Antibody (C-term) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

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

NCBI GI #	189083849
NCBI GeneID	210
NCBI Accession #	NP_000022.3
UniProt Primary Accession #	P13716
UniProt Secondary Accession #	Q16870; Q16871; Q9BVQ9; A8K375; B2R6F2
UniProt Related Accession #	P13716
GenBank Nucleotide #	NM_000031.5
NCBI Official Full Name	delta-aminolevulinic acid dehydratase
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; aminolevulinate, delta-, dehydratase; porphobilinogen synthase
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.** Report the effect of ALAD polymorphism on hematopoietic, hepatic and renal toxicity from lead in occupational exposure workers.
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