

ALAS1 Rabbit pAb

Catalog # AP97973

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P13196
Other Accession	P13196
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70581
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ALAS1/ALAS-H
Epitope Specificity	161-260/640
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the class-II pyridoxal-phosphate-dependent aminotransferase family.
SUBUNIT	Homodimer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	5-aminolevulinate synthase 1 (ALAS-H) and 2 (ALAS-E) are two isoforms of ALAS, an enzyme catalyzing the first step of the heme biosynthetic pathway in mammals. The erythroid-specific isoenzyme, ALAS-E, regulates the first step of hematopoietic cell differentiation and iron metabolism in the liver. ALAS-H is a housekeeping protein which mediates synthesis of early heme in the mitochondria of most cells. Succinyl CoA associates with ALAS-E in protein conformation change and translocation of ALAS-E into the mitochondria and does not interact with ALAS-H. The ALAS-E 5'-flanking region contains binding sites for nuclear activators such as GATA-1, NF-E2 and EKLF. Since the ALAS gene maps to the X chromosome, mutation of the gene leads to the pyridoxine-refractory X-linked sideroblastic anemia.

Additional Information

Gene ID	211
Other Names	ALAS; ALAS-H; ALAS3; ALASH; MIG4; ALAS-N; Alas-1; ALA-S; HEM1_HUMAN; ALAS1; 5-aminolevulinic acid synthase 1; Delta-ALA synthase 1; Delta-aminolevulinate synthase 1; 2.3.1.37; HEM1_MOUSE; HEM1_RAT; 5'-aminolevulinate synthase 1; aminolevulinate, delta-, synthase 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ALAS1
Synonyms	ALAS3, ALASH
Function	Catalyzes the pyridoxal 5'-phosphate (PLP)-dependent condensation of succinyl-CoA and glycine to form aminolevulinic acid (ALA), with CoA and CO ₂ as by-products.
Cellular Location	Mitochondrion inner membrane {ECO:0000250 UniProtKB:P22557}; Peripheral membrane protein {ECO:0000250 UniProtKB:P22557}. Note=Localizes to the matrix side of the mitochondrion inner membrane. {ECO:0000250 UniProtKB:P22557}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.