10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ALAS1 Rabbit pAb

Catalog # AP97973

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P13196
Other Accession	P13196
Reactivity	Human
Predicted	Rat, Mouse, Rabbit, Dog, Horse
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 differentation 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 CO2 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'.