

Product datasheet for **TA336353**

ALAS1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, Simple Western, WB
Recommended Dilution:	Immunohistochemistry, Western Blot: 1-3 ug/ml, Immunohistochemistry-Paraffin: 5 ug/ml, Simple Western: 1:50
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A portion of amino acids 480-530 of human ALAS-1 were used as the immunogen.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	5'-aminolevulinate synthase 1
Database Link:	NP_000679 Entrez Gene 211 Human P13196



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Background:

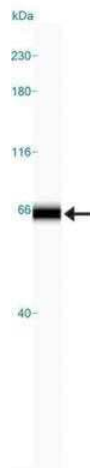
Official Gene Symbol: ALAS1 Gene ID: 211(human) Gene Map Locus: 3p21.1(human) ALAS-1 (EC 2.3.1.37) is a nuclear-encoded mitochondrial matrix enzyme catalyzing the condensation of glycine with succinyl-CoA to form delta-amino levulinate, CO₂ and CoA. It regulates the first and rate-limiting step of heme biosynthetic pathway. It is one of the two isoforms of ALAS and is a pyridoxal-5' phosphate dependant housekeeping enzyme. It is ubiquitously expressed and is responsible of providing heme for cytochromes and other hemoproteins. ALAS1 in liver undergoes negative feedback regulation by heme. Transcription of ALAS1 gene is stimulated by cAMP and respiratory uncoupling whereas Phorbol esters and insulin repress ALAS1 gene expression. ALAS1 is suggested to be involved in reciprocal regulation of Heme biosynthesis and circadian clock suggesting a potential target for treatment of circadian disorders. ALAS1 gene expression is down regulated in Acute Liver failure resulting in altered heme metabolism and liver function.

Synonyms:

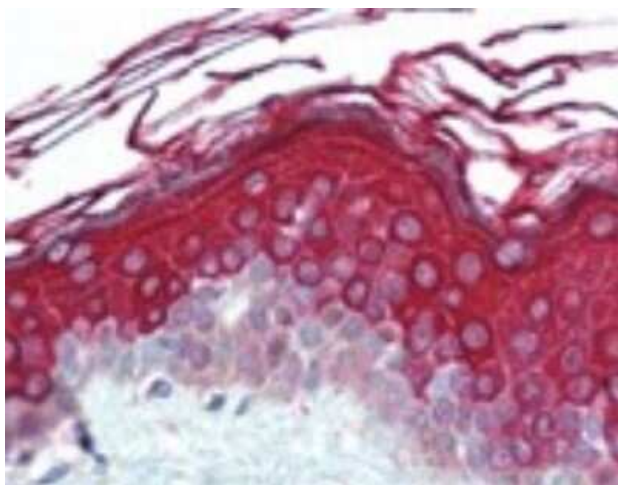
ALAS; ALAS-H; ALAS3; ALASH; MIG4

Protein Pathways:

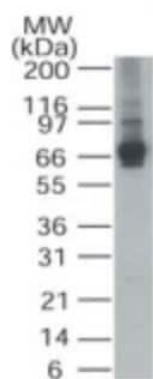
Glycine, serine and threonine metabolism, Metabolic pathways, Porphyrin and chlorophyll metabolism

Product images:

Simple Western: Alas1 Antibody TA336353 - Simple Western lane view shows a specific band for Alas1 in 0.5 mg/ml of HepG2 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Immunohistochemistry-Paraffin: Alas1 Antibody TA336353 - Staining of human skin at 5 ug/ml. Heat induced antigen retrieval in pH 6.0 citrate buffer was used for unmasking. A biotinylated secondary antibody followed by alkaline phosphatase-streptavidin was used and chromogen was used for detection.



Western Blot: Alas1 Antibody TA336353 - analysis of HepG2 cell lysate using ALAS1 antibody at 1 ug/ml.