

Rat 5-aminolevulinate synthase, nonspecific, mitochondrial (ALAS1) ELISA Kit

Catalog No: #EK7407

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

Package Size: #EK7407-1 48T #EK7407-2 96T

Description

Product Name	Rat 5-aminolevulinate synthase, nonspecific, mitochondrial (ALAS1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (<i>Rattus norvegicus</i>)
Other Names	ALAS; ALAS3; ALASH; MIG4; 5-aminolevulinate synthase 1 migration-inducing protein 4
Accession No.	P13195
Uniprot	P13195
GeneID	65155;
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

Application Details

Detect Range:0.781-50 ng/mL

Sensitivity:0.36 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate ALAS1 in samples. An antibody specific for ALAS1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyALAS1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for ALAS1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of ALAS1 bound in the initial step. The color development is stopped and the intensity of the color is measured.**Product Overview:**Delta-aminolevulinate synthase 1 is an aminolevulinic acid synthase. Delta-aminolevulinate synthase catalyzes the condensation of glycine with succinyl-CoA to form delta-aminolevulinic acid. This nuclear-encoded mitochondrial enzyme is the first and rate-limiting enzyme in the mammalian heme biosynthetic pathway. There are 2 tissue-specific isozymes: a housekeeping enzyme encoded by the ALAS1 gene and an erythroid tissue-specific enzyme encoded by ALAS2.

ALAS1encodes a housekeeping form of ALAS inasmuch as it is expressed in all cell types, including erythroid cells, whereas ALAS2 encodes a red cell-specific form. ALAS1 and ALAS2 have only 59% identity in amino acid sequence; there was no homology in the amino-terminal region and about 73% homology after hepatic residue 197.

Note: This product is for in vitro research use only