

## Datasheet for ABIN5651675 **ALAS1 ELISA Kit**



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### Overview

Quantity: 96 tests

Target: ALAS1

Reactivity: Rat

Method Type: Sandwich ELISA

Detection Range: 0.781 ng/mL - 50 ng/mL

Minimum Detection Limit: 0.781 ng/mL

Application: ELISA

### Product Details

Sample Type: Tissue Homogenate

Analytical Method: Quantitative

Detection Method: Colorimetric

Specificity: This assay has high sensitivity and excellent specificity for detection of Aminolevulinate Delta Synthase 1 (ALAS1). No significant cross-reactivity or interference between Aminolevulinate Delta Synthase 1 (ALAS1) and analogues was observed.

Sensitivity: 0.36 ng/mL

### Target Details

Target: ALAS1

Alternative Name: Aminolevulinate Delta Synthase 1 ([ALAS1 Products](#))

## Target Details

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Background: Gene Name: Aminolevulinate Delta Synthase 1  
Gene Aliases: ALAS3, ALAS, ALASH, 5-aminolevulinic acid synthase 1, Delta-ALA synthase 1, 5-aminolevulinate synthase, nonspecific, mitochondrial

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Pathways: [Regulation of Lipid Metabolism by PPARalpha](#)

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## Application Details

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Comment: The stability of 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. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.

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Assay Time: 3 h

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Plate: Pre-coated

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Protocol: The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Aminolevulinate Delta Synthase 1 (ALAS1). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Aminolevulinate Delta Synthase 1 (ALAS1). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Aminolevulinate Delta Synthase 1 (ALAS1), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Aminolevulinate Delta Synthase 1 (ALAS1) in the samples is then determined by comparing the O.D. of the samples to the standard curve.

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Assay Precision: Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Aminolevulinate Delta Synthase 1 (ALAS1) were tested 20 times on one plate, respectively  
Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Aminolevulinate Delta Synthase 1 (ALAS1) were tested on 3 different plates, 8 replicates in each plate.  $CV(\%) = SD/mean \times 100$   
Intra-Assay:  $CV < 10\%$   
Inter-Assay:  $CV < 12\%$

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Restrictions: For Research Use only

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## Handling

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Handling Advice:	The Stop Solution is acidic. Do not allow to contact skin or eyes. Calibrators, controls and specimen samples should be assayed in duplicate. Once the procedure has been started, all steps should be completed without interruption.
Storage:	4 °C,-20 °C
Storage Comment:	-20°C. Bring all reagents to room temperature before beginning test. The kit may be stored at 4°C for immediate use within two days upon arrival. Reseal any unused strips with desiccant pack. Minimize freeze/thaw cycles.
Expiry Date:	4-8 months