

## Recombinant Human ALAS1 Protein, His-tagged

**Cat. No.** ALAS1-312H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human ALAS1, transcript variant 2, fused with His tag at N-terminal was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | This gene encodes the mitochondrial enzyme which catalyzes the rate-limiting step in heme (iron-protoporphyrin) biosynthesis. The enzyme encoded by this gene is the housekeeping enzyme; a separate gene encodes a form of the enzyme that is specific for erythroid tissue. The level of the mature encoded protein is regulated by heme: high levels of heme down-regulate the mature enzyme in mitochondria while low heme levels up-regulate. A pseudogene of this gene is located on chromosome 12. Alternative splicing results in multiple transcript variants encoding different isoforms. |
| <b>Form</b>             | 25mM Tris, pH8.0, 150 mM NaCl, 10% glycerol, 1 % Sarkosyl. Store at -80 centigrade. Avoid repeated freeze-thaw cycles. Stable for at least 3 months from receipt of products under proper storage and handling conditions.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Molecular Mass</b>   | 70.4 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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## GENE INFORMATION

|                 |                                                                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Name       | ALAS1 aminolevulinate, delta-, synthase 1 [ Homo sapiens ]                                                                                                                                                                                                                 |
| Official Symbol | ALAS1                                                                                                                                                                                                                                                                      |
| Synonyms        | ALAS1; aminolevulinate, delta-, synthase 1; ALAS, ALAS3; 5-aminolevulinate synthase, nonspecific, mitochondrial; ALAS-H; delta-ALA synthase 1; migration-inducing protein 4; 5-aminolevulinic acid synthase 1; delta-aminolevulinate synthase 1; ALAS; MIG4; ALAS3; ALASH; |
| Gene ID         | 211                                                                                                                                                                                                                                                                        |
| mRNA Refseq     | NM_000688                                                                                                                                                                                                                                                                  |
| Protein Refseq  | NP_000679                                                                                                                                                                                                                                                                  |
| MIM             | 125290                                                                                                                                                                                                                                                                     |
| UniProt ID      | P13196                                                                                                                                                                                                                                                                     |

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