

Product datasheet for **RC218323**

ALAS2 (NM_001037968) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALAS2 (NM_001037968) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALAS2
Synonyms:	ALAS-E; ALASE; ANH1; ASB; SIDBA1; XLDPP; XLEPP; XLSA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218323 representing NM_001037968
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGAGGGGAGAGGTTGCTCTGGGATGGAACAAGAAAAGAGTTGTTTTGTGAGGACTTTAGGTTCA
 AGATGGTACTGCAGCCATGCTGCTACAGTGCTGCCAGTGCTTGCCCGGGGCCCAAGCCTCCTAGG
 CAAGGTGGTTAAGACTCACCAGTTCCTGTTTGGTATTGGACGCTGTCCATCCTGGCTACCAAGGACCA
 AACTGTTCTCAAATCCACCTTAAGGCAACAAGGCTGGAGGAGATTCTCCATCTTGGGCGAAGGGCCACT
 GTCCTTCATGCTGTCGGAACCTCAGGATGGGAAGAGCAAGATTGTGAGAAGGCAGCCCCAGAAGTCCA
 GGAAGATGTGAAGGCTTTCAAGACAGGAACTATGTCTTCAGTTATGACCAGTTTTTCAGGGACAAGATC
 ATGGAGAAGAAACAGGATCACACCTACCGTGTGTTCAAGACTGTGAACCGCTGGGCTGATGCATACCTT
 TTGCCAACATTTCTCTGAGGCATCTGTGGCCTCAAAGGATGTGTCGGTCTGGTGTAGTAATGATTACCT
 GGGCATGAGCCGACACCCTCAGGTCTTGAAGCCACACAGGAGACCCTGCAGCGTCATGGTCTGGAGCT
 GGTGGCACCCGCAACATCTCAGGCACCAGTAAGTTTCATGTGGAGCTTGAGCAGGAGCTGGCTGAGCTGC
 ACCAGAAGGACTCAGCCCTGCTCTTCTCCTCTGCTTTGTTGCCAATGACTCTACTCTCTTCACCTTGGC
 CAAGATCTGCCAGGTGCGAGATTTACTCAGACGCAGGCAACCATGCTTCCATGATCCAAGGTATCCGT
 AACAGTGGAGCAGCCAAGTTTGTCTTACGGCACAATGACCCTGACCACCTAAAGAAAATTCTAGAGAAGT
 CTAACCCTAAGATACCCAAAATTGTGGCCTTTGAGACTGTCCACTCCATGGATGGTGCCATCTGTCCCT
 CGAGGAGTTGTGTGATGTGTCCCACAGTATGGGGCCCGACCTTCGTGGATGAGGTCCATGCTGTAGGA
 CTGTATGGGTCGCGGGCGCTGGGATTGGGGAGCGTGATGGAATTATGCATAAGATTGACATCATCTCTG
 GAACCTTTGGCAAGGCCTTTGGCTGTGTGGCGGCTACATTGCCAGCACCCGCTGACTTGGTGGACATGT
 CGCTCTATGCTGCAGGCTTCACTTTTACACTTCTCTGCCCCCATGGTGTCTCTGGAGCTTAGAA
 TCTGTGCGGCTGCTCAAGGGAGAGGAGGGCCAAGCCCTGAGGCGAGCCACCAGCGCAATGTCAAGCACA
 TGCGCCAGCTACTCATGGACAGGGGCTTCTGTGATCCCTGCCCCAGCCACATCATCCCCATCCGGGT
 GGGCAATGCAGCACTCAACAGCAAGCTCTGTGATCTCTGCTCTCCAAGCATGGCATCTATGTGCAGGCC
 ATCAACTACCAACTGTCCCCGGGGTGAAGAGCTCTGCGCTTGGCACCCCTCCCCCACCACAGCCCTC
 AGATGATGGAAGATTTTGTGGAGAAGCTGCTGCTGGCTTGGACTGCGGTGGGGTGCCCTCCAGGATGT
 GTCTGTGGCTGCCTGCAATTTCTGTGCGCGTCTGTACACTTTGAGCTCATGAGTGAGTGGGAACGTTCC
 TACTTCGGGAACATGGGGCCCCAGTATGTACCACCTATGCC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218323 representing NM_001037968
 Red=Cloning site Green=Tags(s)

MRGGEVALGWNKKRFLCEDFRFKMVTAAALLQCCPVLARGPTSLLGKVVKTHQFLFGIGRCPILATQGP
 NCSQIHLKATKAGGDSWAKGHCPFMLELQDGKSKIVQKAAPEVQEDVKAFKTNVYVFSYDQFFRDKI
 MEKKQDHTYRVFKTVNRWADAYPFAQHFSEASVASKDVSVWCSNDYLGMSRHPQVLQATQETLQRHAGA
 GGTRNISGTSKFHVELEQELAEHLQKDSALLFSSCFVANDSTLFTLAKILPGCEIYSDAGNHASMIQGIR
 NSGAAKFVFRHNDPDLKLLLEKSNPKIPKIVAFETVHSMGAIICPLEELCDVSHQYALTFVDEVHAVG
 LYGSRGAGIGERDGMHKIDIIISGTLGKAFGCVGGYIASTRDLVDMVRSYAAGFIFTTSLPPMVLSGALE
 SVRLKKEEGQALRRHQNRVNHMRQLLMDRGLPVIPCPSHIPIIRVGNAAALNSKLDLSSKHGIYVQA
 INYPTVPRGEEELRLAPSPHHSPQMEDFVEKLLLAWTAVGLPLQDVSVAAACNFCRRPVHVFELMSEWERS
 YFGNMGPQYVTTYA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8068_a02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001037968

ORF Size: 1722 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001037968.4](#)

RefSeq Size: 1937 bp

RefSeq ORF: 1725 bp

Locus ID: 212

UniProt ID: [P22557](#)

Cytogenetics: Xp11.21

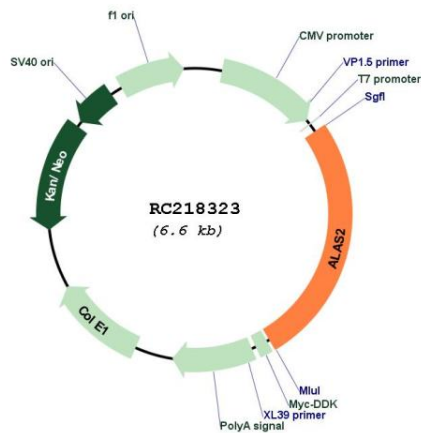
Protein Families: Druggable Genome

Protein Pathways: Glycine, serine and threonine metabolism, Metabolic pathways, Porphyrin and chlorophyll metabolism

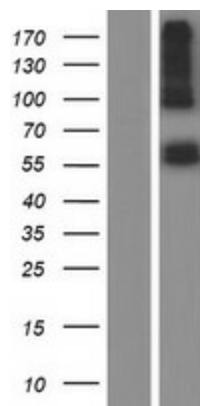
MW: 63.49 kDa

Gene Summary: The product of this gene specifies an erythroid-specific mitochondrially located enzyme. The encoded protein catalyzes the first step in the heme biosynthetic pathway. Defects in this gene cause X-linked pyridoxine-responsive sideroblastic anemia. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC218323



Western blot validation of overexpression lysate (Cat# [LY421997]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218323 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).