

Product datasheet for **RC206567**

ALAS2 (NM_001037967) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALAS2 (NM_001037967) 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:

>RC206567 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGAGGGGAGAGGTTGCTCTGGGATGGAACAAGAAAAAGAGTTGTTTTGTGAGGACTTTAGGTTCA
 AGATGGTGACTGCAGCCATGCTGCTACAGTGCTGCCAGTGCTTGCCCGGGGCCCAACAAGCCTCCTAGG
 CAAGGTGGTTAAGACTCACCAGTTCCTGTTTGGTATTGGACGCTGTCCATCCTGGCTACCCAAGGACCA
 AACTGTTCTCAAATCCACCTTAAGGCAACAAGGCTGGAGGAGATTCTCCATCTTGGGCGAAGGGCCACT
 GTCCTTCATGCTGTCGGAACCTCAGGATGGGAAGAGCAAGATTGTGCAGAAGGCAGCCCCAGAAGTCCA
 GGAAGATGTGAAGGCTTTCAAGACAGGAACTATGTCTTCAGTTATGACCAGTTTTTCAGGGACAAGATC
 ATGGAGAAGAAACAGGATCACACCTACCGTGTGTTCAAGACTGTGAACCGCTGGGCTGATGCATATCCCT
 TTGCCAACATTTCTCTGAGGCATCTGTGGCCTCAAAGGATGTGTCGGTCTGGTGTAGTAATGATTACCT
 GGGCATGAGCCGACACCCTCAGGCTTGAAGCCACACAGGAGACCCTGCAGCGTCATGGTGTGGAGCT
 GGTGGCACCCGCAACATCTCAGGCACCAGTAAGTTTCATGTGGAGCTTGAGCAGGAGCTGGCTGAGCTGC
 ACCAGAAGGACTCAGCCCTGCTCTTCTCCTCTGCTTTGTTGCCAATGACTCTACTCTCTTCACCTTGGC
 CAAGATCCTGCCAGGTGCGAGATTTACTCAGACGCAGGCAACCATGCTTCCATGATCCAAGGTATCCGT
 AACAGTGGAGCAGCCAAGTTTGTCTTCAGGCACAATGACCCTGACCACCTAAAGAAAATTCTAGAGAAGT
 CTAACCCTAAGATACCCAAAATTGTGGCCTTTGAGACTGTCCACTCCATGGATGGTGCCATCTGTCCCT
 CGAGGAGTTGTGTGATGTGTCCCACCAGTATGGGGCCCGACCTTCGTGGATGAGGTCCATGCTGTAGGA
 CTGTATGGGTCCCGGGCGCTGGGATTGGGGAGCGTGATGGAATTATGCATAAGATTGACATCATCTCTG
 GAACCTCTGGCAAGGCCTTTGGCTGTGTGGCGGCTACATTGCCAGCACCCGCTGACTTGGTGGACATGT
 CGCTCTATGCTGCAGGCTTCACTTTTACCCTTCTCTGCCCCCATGGTGTCTCTGGAGCTTAGAA
 TCTGTGCGGCTGCTCAAGGGAGAGGAGGGCCAAGCCCTGAGGCGAGCCACCAGCGCAATGTCAAGCACA
 TGCGCCAGCTACTCATGGACAGGGGCTTCTGTGATCCCTGCCCCAGCCACATCATCCCCATCCGGT
 GGGCAATGCAGCACTCAACAGCAAGCTCTGTGATCTCTGCTCTCCAAGCATGGCATCTATGTGCAGGCC
 ATCAACTACCAACTGTCCCCGGGGTGAAGAGCTCTGCGCTTGGCACCCCTCCCCCACCACAGCCCTC
 AGATGATGGAAGATTTTGTGGAGAAGCTGCTGCTGGCTTGGACTGCGGTGGGGTGCCCTCCAGGATGT
 GTCTGTGGCTGCCTGCAATTTCTGTGCGCGTCTGTACACTTTGAGCTCATGAGTGAGTGGGAACGTTC
 TACTTCGGGAACATGGGGCCCCAGTATGTACCACCTATGCC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206567 protein sequence
 Red=Cloning site Green=Tags(s)

MRGGEVALGWNKKRFLCEDFRFKMVTAAALLQCCPVLARGPTSLLGKVVKTHQFLFGIGRCPILATQGP
 NCSQIHLKATKAGGDSWAKGHCPFMLELQDGKSKIVQKAPEVQEDVKAFKTNVYVFSYDQFFRDKI
 MEKKQDHTYRVFKTVNRWADAYPFAQHFSEASVASKDVSVWCSNDYLGMSRHPQVLQATQETLQRHVGA
 GGTRNISGTSKFHVELEQELAEHLQKDSALLFSSCFVANDSTLFTLAKILPGCEIYSDAGNHASMIQGIR
 NSGAAKFVFRHNDPDLKLLLEKSNPKIPKIVAFETVHSMGAIICPLEELCDVSHQYGALTFVDEVHVG
 LYGSRGAGIGERDGMHKIDIIISGTLGKAFGCVGGYIASTRDLVDMVRSYAAGFIFTTSLPPMVLSGALE
 SVRLKKEEGQALRRAHQNRVNHMRQLLMDRGLPVIPCPSHIPIIRVGNAAALNSKLDLSSKHGIYVQA
 INYPTVPRGEEELRLAPSPHHSPQMEDFVEKLLLAWTAVGLPLQDVSVAAACNFCRRPVHFELMSEWERS
 YFGNMGPPQVVTYYA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6682_d11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001037967

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq Size: 1933 bp

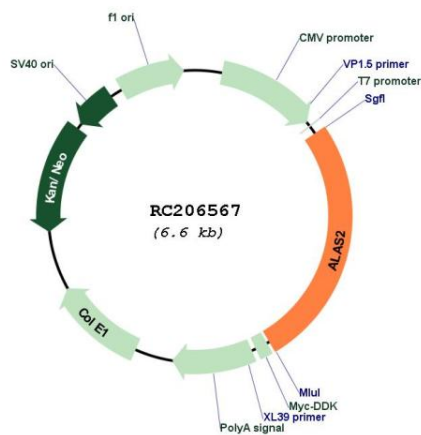
RefSeq ORF: 1653 bp

Locus ID: 212

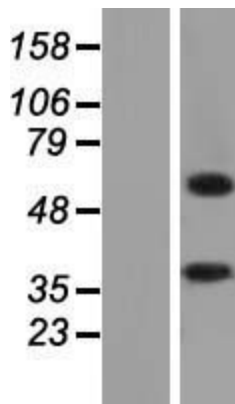
UniProt ID: [P22557](#)

Cytogenetics:	Xp11.21
Protein Families:	Druggable Genome
Protein Pathways:	Glycine, serine and threonine metabolism, Metabolic pathways, Porphyrin and chlorophyll metabolism
MW:	63.5 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 RC206567



Western blot validation of overexpression lysate (Cat# [LY421996]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206567 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).