Datasheet for ABIN7556185

# ACOX1 Protein (AA 1-661) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | ACOX1 |
| Protein Characteristics: | AA 1-661 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This ACOX1 protein is labelled with His tag. |

## Product Details

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| Purpose: | Custom-made recombinant Acox1 Protein expressed in mammalian cells. |
| Sequence: | MNPDLRKERA AATFNPELIT HILDGSPENT RRRREIENLI LNDPDFQHED YNFLTRSQRY EVAVKKSATM VKKMREFGIA DPEEIMWFKK LHMVNFVEPV GLNYSMFIPT LLNQGTTAQQ EKWMHPSQEL QIIGTYAQTE MGHGTHLRGL ETTATYDPKT QEFILNSPTV TSIKWWPGGL GKTSNHAIVL AQLITRGECY GLHAFVVPIR EIGTHKPLPG ITVGDIGPKF GYEEMDNGYL KMDNYRIPRE NMLMKYAQVK PDGTYVKPLS NKLTYGTMVF VRSFLVGSAA QSLSKACTIA IRYSAVRRQS EIKRSEPEPQ ILDFQTQQYK LFPLLATAYA FHFLGRYIKE TYMRINESIG QGDLSELPEL HALTAGLKAF TTWTANAGIE ECRMACGGHG YSHSSGIPNI YVTFTPACTF EGENTVMMLQ TARFLMKIYD QVQSGKLVGG MVSYLNDLPS QRIQPQQVAV WPTLVDINSL DSLTEAYKLR AARLVEIAAK NLQAQVSHRK SKEVAWNLTS VDLVRASEAH CHYVTVKVFA DKLPKIQDRA VQAVLRNLCL LYSLYGISQK GGDFLEGNII TGAQMSQVNS RILELLTVTR PNAVALVDAF DFKDVTLGSV LGRYDGNVYE NLFEWAKKSP LNKTEVHESY YKHLKPLQSK L<br>**Sequence without tag. The proposed Purification-Tag is based on experiences with the** |

## Product Details

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| | **expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.** |
| Specificity: | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer. |
| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalian cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. |
| Purity: | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC) |
| Grade: | custom-made |

## Target Details

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| Target: | ACOX1 |
| Alternative Name: | Acox1 (ACOX1 Products) |
| Background: | Peroxisomal acyl-coenzyme A oxidase 1 (AOX) (EC 1.3.3.6) (Palmitoyl-CoA oxidase) (Peroxisomal fatty acyl-CoA oxidase) (Straight-chain acyl-CoA oxidase) [Cleaved into: Peroxisomal acyl-CoA oxidase 1, A chain, Peroxisomal acyl-CoA oxidase 1, B chain, Peroxisomal acyl-CoA oxidase 1, C chain],FUNCTION: Involved in the initial and rate-limiting step of peroxisomal beta-oxidation of straight-chain saturated and unsaturated very-long-chain fatty acids. Catalyzes the desaturation of fatty acyl-CoAs such as palmitoyl-CoA (hexadecanoyl-CoA) to 2-trans-enoyl-CoAs ((2E)-enoyl-CoAs) such as (2E)-hexadecenoyl-CoA, and donates electrons directly to molecular oxygen (O(2)), thereby producing hydrogen peroxide (H(2)O(2)). {ECO:0000305\|PubMed:11855929, ECO:0000305\|PubMed:20195242}., FUNCTION: [Isoform 1]: |

## Target Details

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| | Shows highest activity against medium-chain fatty acyl-CoAs. Shows optimum activity with a chain length of 10 carbons (decanoyl-CoA) in vitro. {ECO:0000250\|UniProtKB:Q15067}., FUNCTION: [Isoform 2]: Is active against a much broader range of substrates and shows activity towards long-chain acyl-CoAs. {ECO:0000250\|UniProtKB:Q15067}. |
| Molecular Weight: | 74.6 kDa |
| UniProt: | Q9R0H0 |
| Pathways: | Regulation of Lipid Metabolism by PPARalpha, Monocarboxylic Acid Catabolic Process |

## Application Details

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| Application Notes: | We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |

 