

Product datasheet for **RC220918**

Alkyl DHAP synthase (AGPS) (NM_003659) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkyl DHAP synthase (AGPS) (NM_003659) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alkyl DHAP synthase
Synonyms:	ADAP-S; ADAS; ADHAPS; ADPS; ALDHPSY; RCDP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC220918 representing NM_003659
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGAGGCGCGGCTGCAGCGGGTGGGACTGGCTTGGGCGGGCGGAGCTACGGGTCTGCAGCGG
ACCGGGACCGGGACCCGGACCCGGACCCGGCGCGGGCGGAGGCTGCGGGTTCTCTCTGGCCATCTGCTGGG
CCGGCCCCGGGAGGCTCTGAGTACCAATGAGTGCAAAGCGCGGAGAGCCGCGTCGGCGGCCACGGCAGCG
CCCACGGCCACTCCCGCCGCGCAGGAGTCGGGCACCATCCCAAAGAAGCGGCAAGAAGTTATGAAATGGA
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GTACCCTCTTAGTGGCATGGGTTTACCAACATTTAAAGAATGGATCCAAAATACCCTTGGAGTAAATGTG
GAGCATAAACTACCTCTAAAGCATCCTTAAATCCTAGTGATACACCTCCTTCTGTTGTAATGAAGATT
TTCTTCATGACCTTAAAGAAAATAATTTTCATATTCACAAGAGGCAGATGATCGAGATTTAGAGCTCA
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CCCTGGAGTTCAGTACTGTAGGAGGATGGGTATCTACTCGCGCATCAGGCATGAAGAAGAATATCTATGG
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GGTAGATCTCTGTAGAAATGTAAAAGAAAGAATAACAAGGGAATGCAAAGAGAAGGGTGTTCAGTTTGT
CCTTTTTCTACATGCAGGTTGACGAGACTTACGATGCAGGTGCTTGTATCTACTTCTATTTTGCCTTTA
ACTACAGGGGAATTAGTGACCCACTGACCGTATTTGAACAACTGAGGCAGCTGCTAGAGAAGAAATCCT
TGCTAATGGAGGGAGCCTGTCACATCCCATGGAGTGGGCAAGTTACGGAAGCAATGGCTAAAGGAAAGT
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ACAGAAACCTTTTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220918 representing NM_003659
Red=Cloning site Green=Tags(s)

MAEAAAAAGGTGLGAGASYGSAADRRDPDPDRAGRRLRVL SGHLLGRPREALSTNECKARRASAATAA
 PTATPAAQESGTIPKKRQEVKMWNGWGYNDSKF IFNKKGQIEL TGKRYPLSGMGLPTFKEWIQNTLGVNV
 EHKTTSKASLNPSTPPSVVNEDFLHDLKETNISYSQEAADDRVFRAHGHLHEIFLLREGMFERIPDIVL
 WPTCHDDVVKIVNLACKYNLCIIPIGGGTSVSYGLMCPADETRTIIISLDTSQMNRILWVDENNLTAHVEA
 GITGQELERQLKESGYCTGHEPDSLEFSTVGGWVSTRASGMKKNYGNIEDLVVHIKMVTPRGIIEKSCQ
 GPRMSTGPDIIHFIHGSEGTLGVITEATIKIRPVPEYQKYGSVAFNFEQGVACLREIAKQRCAPASIRL
 MDNKQFQFGHALKPQVSSIFTSFLDGLKKFYITKFKGFDPNQLSVATLLFEGDREKVLQHEKQVYDIAAK
 FGGLAAGEDNGQRGYLLTYVIAYIRDLALEYYVLGESFETSAPWDRVVDLCRNVKERITRECKEKGVQFA
 PFSTCRVTQTYDAGACIYFYFAFNRYGDISDPLTVFEQTEAAAREEILANGGSLSHHHGVGKLRKQWLKES
 ISDVGFGLKSVKEYVDPNNIFGNRLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6200_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003659

ORF Size: 1974 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_003659.4](#)

RefSeq Size: 2074 bp

RefSeq ORF: 1977 bp

Locus ID: 8540

UniProt ID: [O00116](#)

Cytogenetics: 2q31.2

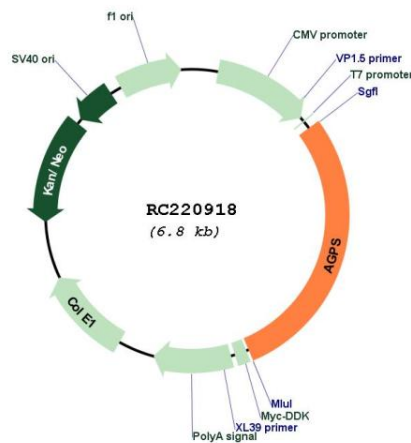
Domains: FAD-oxidase_C, FAD_binding_4

Protein Pathways: Ether lipid metabolism, Metabolic pathways

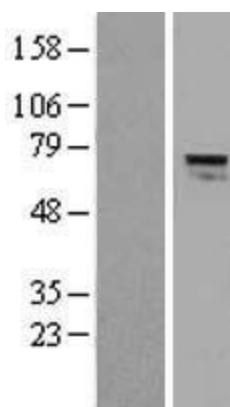
MW: 72.91 kDa

Gene Summary: This gene is a member of the FAD-binding oxidoreductase/transferase type 4 family. It encodes a protein that catalyzes the second step of ether lipid biosynthesis in which acyl-dihydroxyacetonephosphate (DHAP) is converted to alkyl-DHAP by the addition of a long chain alcohol and the removal of a long-chain acid anion. The protein is localized to the inner aspect of the peroxisomal membrane and requires FAD as a cofactor. Mutations in this gene have been associated with rhizomelic chondrodysplasia punctata, type 3 and Zellweger syndrome. [provided by RefSeq, Jul 2008]

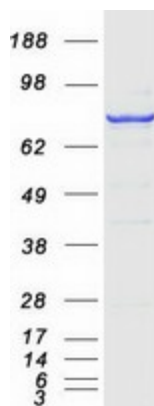
Product images:



Circular map for RC220918



Western blot validation of overexpression lysate (Cat# [LY401211]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220918 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AGPS protein (Cat# [TP320918]). The protein was produced from HEK293T cells transfected with AGPS cDNA clone (Cat# RC220918) using MegaTran 2.0 (Cat# [TT210002]).