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Supporting information for article:

Crystallization and preliminary X-ray crystallographic studies of CrArsM, an As(III) S-adenosylmethionine methyltransferase, from *Chlamydomonas reinhardtii*

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Figure S1 Synthetic CrArsM. **A.** DNA and protein sequence of synthetic CrArsM. **B.** Comparison of the amino acid sequence of synthetic and native CrArsM. The four conserved cysteine residues are numbered. Changes in nonconserved cysteine and tryptophan residues are highlight

A

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M V E P A S I A E L S R A E Q L G K D Q
1 ATGGTGAACCGGCATCTATCGCTGAACTGTCCCGTGCTGAACAACTGGGCAAAGACCAA 60

D A V R A T V K E Y Y G E T L K T S N D
61 GACGCTGTCCGTGCTACCGTGAAGGAATACTATGGTGAACGCTGAAAACCAGCAACGAT 120

L R T S A C T A A K A P P P A V R A A L
121 CTGCGCACGTCTGCTTGTACCGCCGCAAAGGCACCGCCGCGCCGTGCGTGCAGCTCTG 180

A D V P T E V K E K F W G C G N P I P A
181 GCCGATGTGCCGACGGAAGTTAAAGAAAAGTTTTGGGGCTGTGGTAATCCGATCCGGCG 240

G I E G L R V L D L G A G S G R D A Y V
241 GGTATCGAAGGCCTGCGGTTCTGGATCTGGGCGCTGGTAGTGGCCGTGACGCGTATGTC 300

A A K L V G E K G S V T G V D M T P A Q
301 GCGGCCAAACTGGTGGGTGAAAAGGGCTCCGTTACGGGCGTCGATATGACCCCGGCTCAG 360

L E V A I S H A D A Y A R D K L G Y G K
361 CTGGAAGTGGCGATTTACATGCAGATGCTTATGCGCGGACAAACTGGGTTACGGCAAG 420

S N M T F I Q G E I E Y L D R A G L E D
421 TCGAACATGACCTTTATTCAAGGTGAAATCGAATACCTGGATCGTGCAGGCCTGGAAGAT 480

S S F D L V I S N C V I N L S P D K A R
481 AGCTCTTTTCGACCTGGTTATTAGTAACTGCGTCATCAATCTGTCCCCGGATAAAGCGCGT 540

V L S E A Y R V L A P G G E M H F S D V
541 GTCTTGAGCGAAGCATATCGTGTGCTGGCACCAGGGCGGTGAAATGCATTTTTCTGATGTG 600

Y V D R R L P Q S V R S H P V L L G E C
601 TACGTTGACCGTCGCTGCCGAGAGTGTGCGTTCACCCGGTTCTGCTGGGTGAATGT 660

L A G A L Y N N D F I R L A R K V G F T
661 CTGGCCGGCGCACTGTATAACAATGATTTTTATTCTGCTGGCCCGCAAAGTGGGTTTCACC 720

D P R Q L E A E E I Q I H D A E L R D Q
721 GACCCGCGTCAGCTGGAAGCTGAAGAAATCAAATCCACGATGCGGAACTGCGTGACCAA 780

V G E A R F Y S I T Y R L F K V P G Q I
781 GTGGGCGAAGCACGCTTTTTATTCTATTACGTACCGTCTGTTCAAAGTTCGGGTCAGATC 840

E D L A E D Y G Q V A V Y K G T I P G H
841 GAAGATCTGGCCGAAGACTATGGCCAAGTCGCAGTGTACAAGGGTACCATCCCGGGCCAT 900

S H A Y D L D D H H R F V T N K P M L V
901 AGCCACGCCTACGATCTGGATGACCATCACCGCTTCGTTACGAACAAACCGATGCTGGTC 960

A G N T A S M V G E S Y L A P H F T I I
961 GCCGGTAATACCGCATCAATGGTCCGGCAATCGTATCTGGGCGCCGATTTTACCATTATC 1020

G D R A V H Y G Q F D A S G P K T T T G
1021 GGTGATCGTGCCGTTCACTACGGCAGTTTCGACGCAAGTGGCCCGAAAACCACGACCGGT 1080

G A A S P S N S A G A A G P G G A A A L
1081 GGTGCGGCAAGTCCGTCAAACCTCAGCGGGTGCAGCGGGTCCGGGCGGTGCGGCGGCGCTC 1140

E H H H H H H *
1141 GAGCACCACCACCACCACCTGA 1164

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B

Synthetic CrArSM	1	MVEPASIAEELSRAEQLGKDQDAVRATVKEYYGETLKTSNDLRTSACTAAKAPPPAVRAAL	46
Native CrArSM	1	MVEPASIAEELSRAEQLGKDQDAVRATVKEYYGETLKTSNDLRTSACTACKAPPPAVRAAL	
Synthetic CrArSM	61	ADVPTEVKEKFWGCGNPIPAGIEGLRVLDLGGAGSGRDAYVAAKLVGEKGSVTGVDMTPAQ	74
Native CrArSM	61	ADVPTEVKEKFWGCGNPIPAGIEGLRVLDLGGAGSGRDAYVAAKLVGEKGSVTGVDMTPAQ	
Synthetic CrArSM	121	LEVAISHADAYARDKLGYGKSNMTFIQGEIEYLDRAGLEDSSFDLVISNCVINLSPDKAR	170
Native CrArSM	121	LEVAISHADAYARDKLGYGKSNMTFIQGEIEYLDRAGLEDSSFDLVISNCVINLSPDKAR	
Synthetic CrArSM	181	VLSEAYRVLAPGGEMHFSVDVYVDRRLPQSVRSHPVLLGEC ²²⁰ LAGALYNNDFIRLARKVGFT	
Native CrArSM	181	VLSEAYRVLAPGGEMHFSVDVYVDRRLPQSVRSHPVLLGEC ²²⁰ LAGALYNNDFIRLARKVGFT	
Synthetic CrArSM	241	DPRQLEAE ²²⁰ EIQIHDAELRDQVGEARFYSITYRLFVKVPGQIEDLAEDYGQVAVYKGTIPGH	
Native CrArSM	241	DPRQLECE ²²⁰ EIQIHDAELRDQVGEARFYSITYRLFVKVPGQIEDLCEDYGQVAVYKGTIPGH	
Synthetic CrArSM	301	SHAYDLDDHHRFVTNKPMLVAGNTASMVGESYLAPHFTIIGDRAVHYGQFDASGPKTTTG	
Native CrArSM	301	SHAYDLDDHHRFVTNKPMLVAGNTASMVGESYLAPHFTIIGDRAVHYGQFDASGPKTTTG	
Synthetic CrArSM	361	GAASPSNSAGAA ²²⁰ GPGGAAALEHHHHHH	
Native CrArSM	361	GAASPSNSAGAA ²²⁰ GPGGAA ²²⁰ CLE	