

SUPPLEMENTAL MATERIALS

CTP synthase, a smooth muscle-sensitive therapeutic target for effective vascular repair

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Supplemental Table I: Primer sequences used in this study.

Primer name	Sequence
mmu-CTPS2-F	GGCATTGGTAAAGGGATTATCGC
mmu-CTPS2-R	AAGGTGAGAAAGTTCCAGCATC
mmu-CTPS1-F	CCGCCAGTTCAGTTCAAG
mmu-CTPS1-R	CACCTGCACACCACTAAGTC
mmu-NME1-F	TCAGGACCAGTGGTTGCTATG
mmu-NME1-R	CTCTTTACAGAATCGCTGCCAT
mmu-NME2-F	ATCGACCTGAAAGACCGTCCT
mmu-NME2-R	TCAGTTCTTCGGGCTTAAACC
rno-CTPS2-F	TTGCCTTGGGATGCAACTGGC
rno-CTPS2-R	CGCCAGGGTTGTGTTTCAGGC
rno-CTPS1-F	TTATCGCCAGCAGTGTGGGCA
rno-CTPS1-R	TCCACCATCATCCAGCACAAAGACT
rno-NME1-F	CCGCCCTTCTTTTCTGGCCT
rno-NME1-R	CCAAGCATCACCCGGCCTGTC
rno-NME2-F	CGAGCAGAAGGGGTTCGCC
rno-NME2-R	GCCCCGGAAGAAAGGACGG
mmu-CMPK-F	AGAATCCAGACTCACAGTATGGT
mmu-CMPK-R	GCAGCCATTGTTTGGTCCA
mmu-UCK1-F	TTTTGTGACCCACTCAAGGTTAC
mmu-UCK1-R	CCGGAGAACTCTTCGAGACAG
mmu-UCK2-F	CTTCCGTTTGTGCTAAGATCGT
mmu-UCK2-R	TCGGTAGAAGCTATCCTGGCT
rno-CMPK-F	GAGCTTCCC GCCGCTAACCC
rno-CMPK-R	GGCCCCGCCCAAACGAACA
rno-UCK1-F	CGGCCGTTTCTCATCGGCGT
rno-UCK1-R	CCGGCGGTCCACTTCGTTCT
rno-UCK2-F	AACCACCAGCAGCCCAACGG
rno-UCK2-R	TCTGCCCCAGAAGCTGGACGA

Supplemental Figure I:

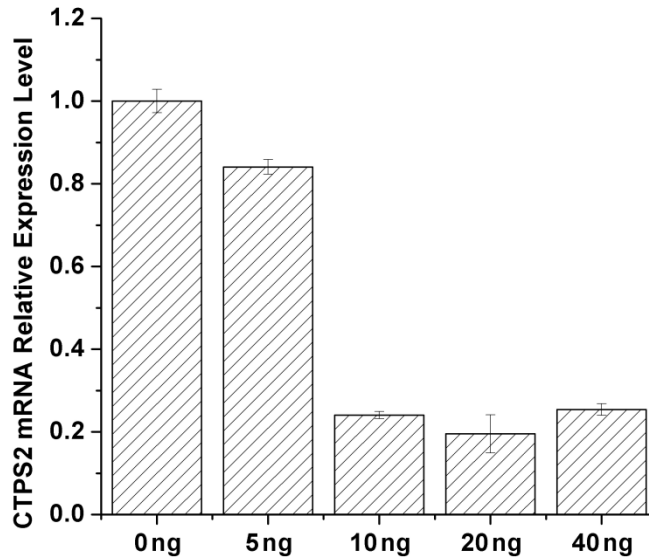


Figure I: CTPS2 mRNA expression in PDGF-BB-treated RASMCs. Unlike CTPS1, CTPS2 was decreased by PDGF-BB.

Supplemental Figure II:

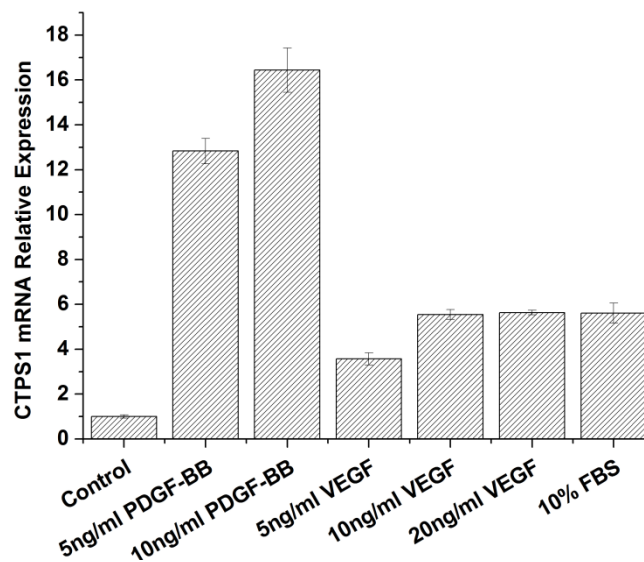


Figure II: CTPS1 expression in proliferating endothelial cells. CTPS1 mRNA was significantly increased in C166 cells when treated with PDGF-BB, VEGF, or 10% FBS.

Supplemental Figure III:

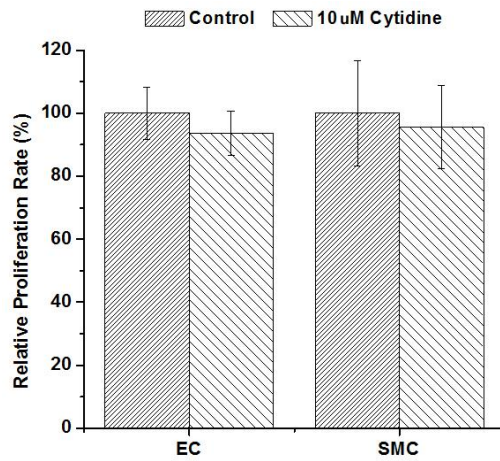


Figure III: Abundant CTP did not accelerate EC or SMC proliferation.

Supplemental Figure IV:

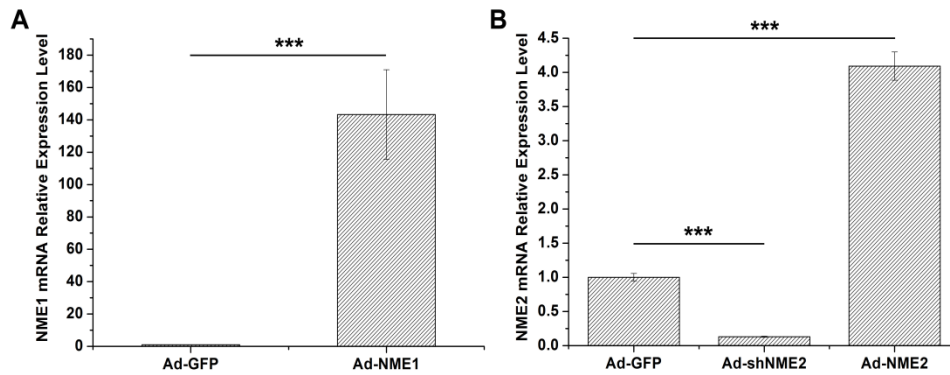


Figure IV: The efficiency of NME1 and NME2 overexpression and shRNA knockdown. (A) NME1 overexpression efficiency was confirmed by qPCR. (B) NME2 overexpression and shRNA knockdown efficiency were confirmed by qPCR. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (n=3).

Supplemental Figure V:

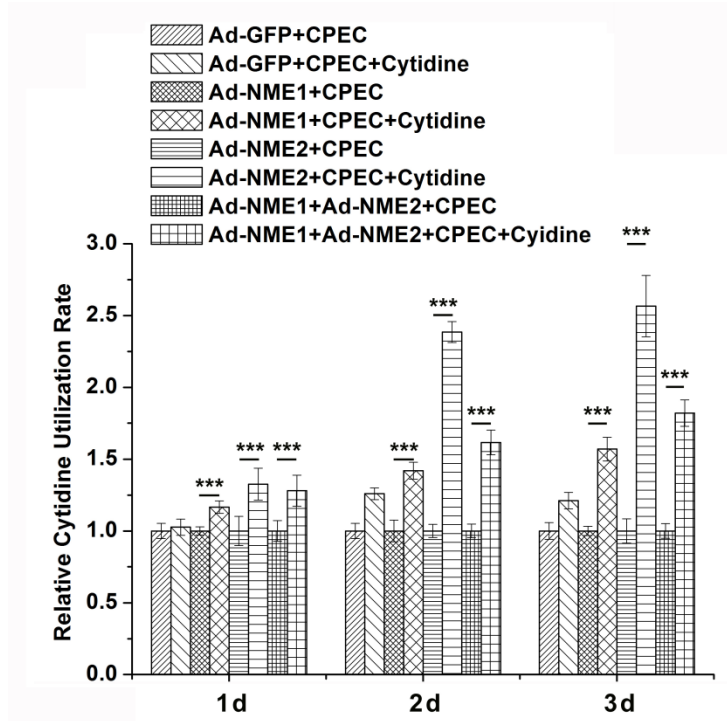


Figure V: NME1 or NME2 overexpression increased the ability of SMCs in utilizing extracellular cytidine for their proliferation. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (n=8).