

Table S4

Construction of pAcetone by SLIC.

4 fragments were designed to have 50 bp homologous ends. Repeated sequences (15 bp RBS+3 bp ATG) is highlighted in red. Vector backbone was amplified from pET28aΔlacI. Insert fragments *thl* *atoAD* and *adc* were generated by PCR. Then they were purified, treated with T4 DNA polymerase and assembled by SLIC with the help of recA.

fragment s	templates	primers	
<i>thl</i>	<i>Clostridium acetobutylicum</i> genomic DNA	thl s	thl a
<i>atoAD</i>	<i>E. coli</i> K12 genomic DNA	atoAD s	atoAD a
<i>adc</i>	<i>Clostridium acetobutylicum</i> genomic DNA	adc s	adc a
vector	pET28aΔlacI	B s	B a
Primer sequences			
thl s	TAACTTTAAGAAGGAGATATACCATGAAAGAAGTTGTAATAGCTAGTGC		
thl a	CAATTTTGTTTTCATATGTATATCTCCTTCCTAGCACTTTTCTAGCAATATTGC		
atoAD s	CTAGAAAAGTGCTAGGAAGGAGATATACATATGAAAACAAAATTGATGACAT TAC		
atoAD a	TTCATCCTTTAACATATGTATATCTCCTTCATATAATCACCCCGTTGC		
adc s	CGGGGTGATTTATGAGAAGGAGATATACATATGTTAAAGGATGAAGTAATTAA AC		
adc a	TCGCCCACCGCCATTTCCGCGGTGATTACTTAAGATAATCATATATAACTTCAG C		
B s	AGTTATATATGATTATCTTAAGTAATCACCGCGGAAATGGCG		
B a	CTGCACTAGCTATTACAACCTTCTTTCATGGTATATCTCCTTCTTAAAGTT		