

Supplementary Table 1. Primers for bacterial engineering of *E. coli* mutant strain with α MAN expression.

att λ - α MAN	Forward	CACCACCACCACCACCCTAAATACTAACTTGAGCGAAAC
	Reverse	GTACCGTTTTCTTTTTTCATGGTATATCTCCTTCTTAAAGT
α MAN-att λ	Forward	TAAGAAGGAGATATACCATGAAAAAGAAAACGGTACATAT
	Reverse	GTGGTGGTGGTGGTGTGATTTTTCTCCTTAATCAACAAA
α MAN-cx	Forward	TCGTTTTTAATACAGCTGGACA
	Reverse	TGATTTTCAGCTGGCACTTCTTG
MG1655att λ	Forward	CACCCGGAGCGGCAGGGACATAT
	Reverse	CTGCTACGACCCGGATGCGCCAA
