

**Table S2: Primer Sequences for SMIPP-S I1 Mutants**

<b>Mutant</b>	<b>Primer ID</b>	<b>Sequence 5' - 3'</b>
I1-A	K108A For	GGATGGACTCAAAGTGCACCTGCTAAATTGCC
	K108A Rev	GGCAATTTAGCAGGTGCACTTTTGAGTCCATCC
I1-Q	K108Q For	GGATGGACTCAAAGTCAACCTGCTAAATTGCC
	K108Q Rev	GGCAATTTAGCAGGTTGACTTTTGAGTCCATCC
Mutant 4	K10A Q11A K108A For	ACCGGTCGACAAAAGAATCAAAGGAGGTGAAAAACCGACATCGCAGCAGTACCTGG
I1	I1 Pichia For	ACCGGTCGACAAAAGAATCAAAGGAGGTGAAAAACCGACATCAAACAAG
I1	I1 Pichia Rev	ACCGGCGGCCGCTTATGATTTCTTCTTAATTATATCTTGTATCCATGA