

Strain	SpoIIE variant	Spores/ml
RL3	wildtype	3.95×10^8
RL5876	SpoIIE-YFP	3.94×10^8
RL5877	SpoIIE-3XFLAG	4.07×10^8
RL5895	K356D	<1
RL5896	S361F	3.00×10^4
RL5897	C399A	2.50×10^7
RL5898	C402A	1.00×10^7
RL5899	C408A W409A	3.38×10^7
RL5900	C446A	1.00×10^7
RL5901	I538A	7.00×10^5
RL5902	L646K	<1
RL5903	D686A	5
RL5904	Q483A	126
RL5905	V490K	68
RL5906	D628A	<1
RL5907	E639K	6.00×10^2
RL5908	E675A	3.60×10^4
RL5909	S699D	<1
RL6052	Tag ^{SpoIIE} -MalFtm	3.90×10^6
RL6053	MalFtm	9.00×10^5
RL5936	K356D T353I	4.40×10^7
RL5937	T353I S361F	<2000
RL5938	T353I V490K	<1
RL5939	K356D V697A	4.70×10^7
RL5940	S361F V697A	2.30×10^8
RL5941	V490K V697A	1.10×10^7
RL5942	Q483A V697A	1.80×10^8
Amino acid substitutions with wild type sporulation efficiency		
E428A, R477A, K552A, Q508A, Y529K, D537K, E539K, D493K, L479F, K448A, E509A, R350A, R350D, T353A, E750A, T416A Y417A		

Figure 4-figure supplement 1: Sporulation efficiency of SpoIIE mutants. Cultures of indicated strains with were grown in DSM for 28 hours at 37°C followed by heat killing for 20 minutes at 85°C. The number of spores was determined by counting viable cells.