

Supplemental Data

ATP-Driven Self-Assembly

of a Morphogenetic Protein in *Bacillus subtilis*

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Table S1. Sporulation efficiencies of strains harboring various *IVA* alleles

Strain ^a	<i>IVA</i>	<i>thr</i>	Sporulation efficiency ^b
A	WT	-	1
B	Δ	-	<10 ⁻⁸
C	Δ	<i>IVA</i> ^{WT}	0.97
D	Δ	<i>IVA</i> ^{K30A}	0.05
E	Δ	<i>IVA</i> ^{K30E}	1.1 X 10 ⁻⁸
F	WT	<i>IVA</i> ^{WT}	0.68
G	WT	<i>IVA</i> ^{K30A}	0.50
H	WT	<i>IVA</i> ^{K30E}	0.41

^aStrain A: PY79; B: KP73; C: KR394; D: KR367; E: KR438; F: KR217; G: KR374; H: KR445. Genotypes are listed in Table S2.

^bSpores/ml recovered, relative to PY79 (WT). PY79 routinely yields 3-4 X 10⁸ spores/ml.

Table S2. Strains used in this study.

Strain	Genotype	Reference/Source
PY79	Prototrophic derivative of <i>B. subtilis</i> 168	Youngman <i>et al.</i> (1984)
CW271	<i>cotE::pCW13 (cotE-gfp) cat</i>	Webb <i>et al.</i> (1995)
KP73	$\Delta spoIVA::neo$	Price and Losick (1999)
CVO1195	<i>amyE::spoVM-gfp cat</i>	van Ooij and Losick (2003)
MF339	<i>amyE::PspacC-gfp spec</i>	Branda <i>et al.</i> (2001)
KR160	<i>thrC::gfp-spoIVA spec</i>	Ramamurthi and Losick (2006)
KR119	$\Delta spoVM::tet \Delta spoIVA::neo$ <i>amyE::spoVM-gfp cat</i>	
KR219	$\Delta spoVM::tet \Delta spoIVA::neo$ <i>amyE::spoVM-gfp cat thrC::spoIVA spec</i>	
KR217	<i>thrC::spoIVA spec</i>	
KR367	<i>spoIVA::neo thrC::spoIVA(K30A) spec</i>	
KR374	<i>thrC::spoIVA(K30A) spec</i>	
KR391	<i>thrC::gfp-spoIVA(K30A) spec</i>	
KR394	$\Delta spoIVA::neo thrC::spoIVA spec$	
KR438	$\Delta spoIVA::neo thrC::spoIVA(K30E) spec$	
KR444	$\Delta spoVM::tet \Delta spoIVA::neo$ <i>amyE::spoVM-gfp cat</i> <i>thrC::spoIVA(K30E) spec</i>	
KR445	<i>thrC::spoIVA(K30E) spec</i>	
KR446	<i>thrC::gfp-spoIVA(K30E) spec</i>	
KR448	$\Delta spoIVA::neo thrC::spoIVA spec$ <i>cotE::pCW13 (cotE-gfp) cat</i>	
KR449	$\Delta spoIVA::neo thrC::spoIVA(K30E) spec$ <i>cotE::pCW13 (cotE-gfp) cat</i>	
KR455	$\Delta spoIVA::neo cotE::pCW13 (cotE-gfp) cat$	
KR466	$\Delta spoIVA::neo amyE::His6-spoIVA cat$ <i>thrC::FLAG-spoIVA spec</i>	
KR481	$\Delta spoIVA::neo amyE::His6-spoIVA(K30E) cat$ <i>thrC::FLAG-spoIVA(K30E) spec</i>	