Supplementary Table 1: Primers for construction of recombinant proteins and antibody production.

	Direction	Sequence[1] 5'-3'	Restriction site
rCotE^{C} (332 residues; 36.8 kDa)			
CotE(C)-NcoI-F	forward	GAT*CCATGG*CT**CCAATTGTAGCAG**	*Nco*I
CotE(C)-XhoI-R	reverse	ATC*CTCGAG***GAATTGCCCATAAATAC**	*Xho*I
rCotE^{N} (214 residues; 24.6 kDa)			
CotE(N)-NcoI-F	forward	GGC*CCATGG*GC**GTG**ATTTACATGCCAAATTT	*Nco*I
CotE(N)-XhoI-R	reverse	CCG*CTCGAG***TGGTACAAAACATAAGTACCAG**	*Xho*I
rCotF (88 residues; 10.5 kDa)			
CotF-NcoI-F	forward	GGC*CCATGG*GC**ATG**TCATTAAATAGAA	*Nco*I
CotF-XhoI-R	reverse	CCG*CTCGAG*TTTATAAAATGATTTGT	*Xho*I
rCotG (266 residues; 25.3 kDa)			
CotG-NcoI-F	forward	GGC*CCATGG*GC**ATG**TTTAAACAC	*Nco*I
CotG-XhoI-R	reverse	CCG*CTCGAG***TTTTTTTAAAGGTTTTTC**	*Xho*I
rSodA (234 residues; 27.2 kDa)			
SodA-NcoI-F	forward	GGC*CCATGG*GC**ATGAAGAAA**	*Nco*I
SodA-XhoI-R	reverse	CCG*CTCGAG***ATCTTGAGATTTTAAATTTTT**	*Xho*I

[1] Restriction site is in italics. Start codons are underlined and coding sequence is shown in bold.

Supplementary Table 2: Complementation of the *cotA* mutant *cotA::CT555a*

Treatment	**Strain**	**A** **Total CFU/ml (untreated)**	**B** **Resistant CFU/ml**	**% resistance (B/A X 100)**
Lysozyme	WT 630Δ*erm*	1.12 X 10^6	1.09 X 10^6	**97%**
	cotA::CT555a	2.68 X 10^5	8.6 X 10^4	**32**
	cotA::CT555a *pRPF185 (cotA)*	1.15 X 10^6	1.24 X 10^6	**107**
Ethanol	WT 630Δ*erm*	1.12 X 10^6	9.8 X 10^5	**88**
	cotA::CT555a	2.68 X 10^5	9.4 X 10^4	**35**
	cotA::CT555a *pRPF185 (cotA)*	1.15 X 10^6	1.04 X 10^6	**90**

Supplementary Table 3: Resistance Assays[1]

Treatment	Mutant	A Total CFU/ml (untreated)	B Resistant CFU/ml	% resistance (B/A X 100)	T-test P-value
Heat 65°C	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$1.46 \times 10^6 \pm 3.75 \times 10^5$	113.4	0.48951329
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$2.40 \times 10^5 \pm 8.19 \times 10^4$	83.1	0.54166709
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$1.29 \times 10^6 \pm 4.21 \times 10^5$	72.3	0.20431708
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$1.08 \times 10^6 \pm 2.25 \times 10^5$	73.4	0.07945237
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$7.45 \times 10^5 \pm 3.07 \times 10^5$	73.3	0.22516548
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$1.15 \times 10^6 \pm 2.51 \times 10^5$	76.8	0.30194109
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$1.11 \times 10^6 \pm 1.73 \times 10^5$	104.2	0.83639259
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$5.58 \times 10^5 \pm 7.23 \times 10^4$	111.7	0.32200903
Heat 80°C	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$4.77 \times 10^4 \pm 3.97 \times 10^4$	3.7	5.401×10^{-5}
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$5.78 \times 10^3 \pm 2.22 \times 10^3$	2.0	0.00717702
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$5.40 \times 10^4 \pm 3.15 \times 10^4$	3.0	0.00135718
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$6.80 \times 10^4 \pm 2.49 \times 10^4$	4.6	0.00019144
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$4.40 \times 10^4 \pm 9.35 \times 10^3$	4.3	0.00012955
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$4.30 \times 10^4 \pm 1.53 \times 10^3$	2.9	0.00473811
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$3.22 \times 10^4 \pm 1.52 \times 10^4$	3.0	0.00440594
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$3.04 \times 10^4 \pm 1.75 \times 10^4$	6.1	0.0001262
Virkon	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$1.89 \times 10^1 \pm 1.84 \times 10^1$	>0.0	3.6627×10^{-5}
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$1.11 \times 10^1 \pm 1.92 \times 10^1$	>0.0	0.00667414
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$5.56 \times 10^0 \pm 1.92 \times 10^0$	>0.0	0.00119123
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$667 \times 10^0 \pm 3.33 \times 10^0$	>0.0	0.00015334
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$1.47 \times 10^2 \pm 1.93 \times 10^2$	>0.0	0.00010749
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$2.44 \times 10^1 \pm 1.84 \times 10^1$	>0.0	0.00426176
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$3.33 \times 10^0 \pm 3.33 \times 10^0$	>0.0	0.00392077
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$4.44 \times 10^0 \pm 1.92 \times 10^0$	>0.0	8.0155×10^{-5}
H_2O_2	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$2.00 \times 10^1 \pm 3.46 \times 10^1$	>0.0	3.6627×10^{-5}
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$1.01 \times 10^2 \pm 4.17 \times 10^1$	>0.0	0.00668156
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$9.56 \times 10^1 \pm 3.95 \times 10^1$	>0.0	0.00119146
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$1.07 \times 10^2 \pm 5.77 \times 10^0$	>0.0	0.00015338
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$1.87 \times 10^2 \pm 1.40 \times 10^2$	>0.0	0.00010751
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$9.44 \times 10^1 \pm 6.38 \times 10^1$	>0.0	0.00426248
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$2.56 \times 10^1 \pm 3.56 \times 10^1$	>0.0	0.00392107
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$2.67 \times 10^1 \pm 1.15 \times 10^1$	>0.0	8.0169×10^{-5}
Chloroform	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$1.05 \times 10^6 \pm 5.01 \times 10^4$	81.7	0.02873133
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$2.37 \times 10^5 \pm 2.47 \times 10^4$	82.0	0.41746029
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$1.43 \times 10^6 \pm 4.93 \times 10^4$	80.3	018309146
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$1.17 \times 10^6 \pm 1.19 \times 10^5$	79.4	0.07353679
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$8.03 \times 10^5 \pm 1.89 \times 10^5$	79.0	0.17095862
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$1.17 \times 10^6 \pm 6.54 \times 10^4$	78.1	0.27356593
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$9.22 \times 10^5 \pm 4.58 \times 10^5$	86.5	0.67629992
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$4.12 \times 10^5 \pm 1.50 \times 10^5$	82.3	0.38915901
Toluene	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$1.11 \times 10^6 \pm 1.10 \times 10^5$	86.8	0.13216629
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$2.40 \times 10^5 \pm 2.18 \times 10^4$	83.1	0.44261775
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$1.48 \times 10^6 \pm 4.55 \times 10^5$	83.0	0.42362055
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$1.31 \times 10^6 \pm 1.22 \times 10^5$	88.7	0.25890154
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$9.40 \times 10^5 \pm 1.95 \times 10^5$	92.5	0.58955027
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$1.43 \times 10^6 \pm 2.11 \times 10^5$	95.2	0.81295421
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$1.00 \times 10^6 \pm 7.01 \times 10^4$	94.2	0.7524454
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$3.98 \times 10^5 \pm 1.02 \times 10^5$	79.7	0.19851922
Lysozyme	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$1.17 \times 10^6 \pm 1.34 \times 10^5$	91.4	0.33532164
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$7.50 \times 10^4 \pm 2.65 \times 10^4$	26.0	0.0210438

	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$1.61 \times 10^6 \pm 3.03 \times 10^5$	90.5	0.57445344
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$1.35 \times 10^6 \pm 1.45 \times 10^5$	91.8	0.422989
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$9.22 \times 10^5 \pm 2.36 \times 10^4$	90.7	0.23484143
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$1.37 \times 10^6 \pm 2.75 \times 10^4$	91.7	0.65171887
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$9.55 \times 10^5 \pm 3.65 \times 10^5$	89.7	0.71046252
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$4.75 \times 10^5 \pm 1.42 \times 10^5$	95.0	0.78886517
Ethanol	WT 630Δ*erm*	$1.3 \times 10^6 \pm 1.11 \times 10^5$	$1.15 \times 10^6 \pm 5.77 \times 10^4$	89.5	0.1348907
	cotA::CT555a	$2.9 \times 10^5 \pm 9.68 \times 10^4$	$8.50 \times 10^4 \pm 3.12 \times 10^4$	29.4	0.02560514
	cotB::CT329a	$1.8 \times 10^6 \pm 3.76 \times 10^5$	$1.63 \times 10^6 \pm 1.12 \times 10^5$	91.2	0.52672221
	cotCB::CT220s	$1.5 \times 10^6 \pm 1.83 \times 10^5$	$1.34 \times 10^6 \pm 2.73 \times 10^5$	90.8	0.51563281
	cotD::CT302s	$1.0 \times 10^6 \pm 1.15 \times 10^5$	$9.45 \times 10^5 \pm 2.05 \times 10^5$	93.0	0.62562571
	cotE::CT220s	$1.5 \times 10^6 \pm 4.44 \times 10^5$	$1.35 \times 10^6 \pm 1.18 \times 10^5$	90.1	0.60558119
	cotE::CT1203s	$1.1 \times 10^6 \pm 3.08 \times 10^5$	$9.38 \times 10^5 \pm 6.03 \times 10^4$	88.1	0.52335273
	sodA::CT394s	$5.0 \times 10^5 \pm 5.27 \times 10^4$	$3.97 \times 10^5 \pm 8.01 \times 10^4$	79.3	0.13519452

[1]Resistance assays were performed three times independently.