

Supplemental material for

Crystal structure of ErmE - 23S rRNA methyltransferase in macrolide resistance

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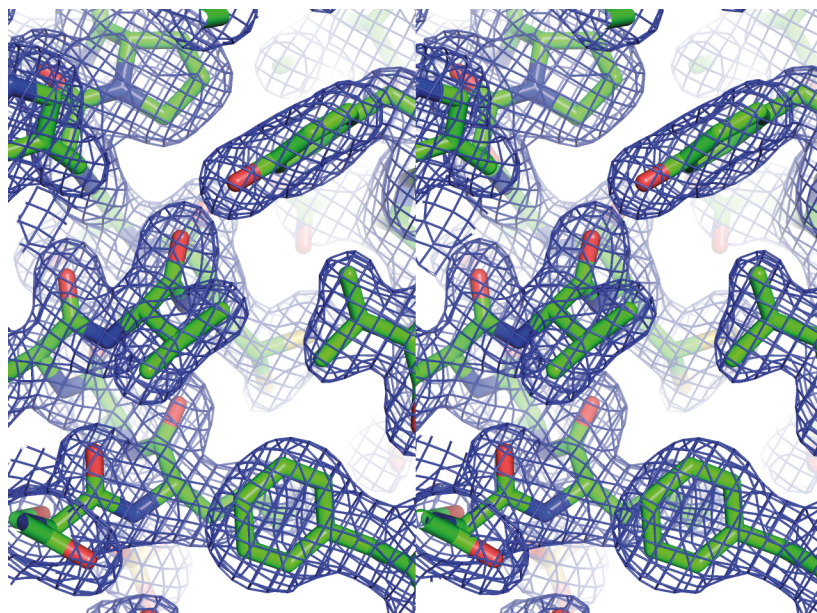
Supplementary Table S1

Details of protein expression constructs

	PikR1 (UniProt ID: Q9ZGI6)	PikR1 truncated
Source organism	<i>S. venezuelae</i> strain ATCC 15439	
Expression vector	pET-24a(+)	
Expression host	<i>E. coli</i> BL21(AI)	
Complete amino-acid sequence	MHHHHHHHHMAMRDSIPRRAD RDTLRRELGQNFLQDDRAVRNL VTHVEGDGRNVLEIGPGKGAITE ELVRSFDTVTVVEMDPHWAAHV RRKFEGERVTVFQGDFLDFRIPR DIDTVVGNVPGITTQILRSLLES TNWQSAALIVQWEVARKRAGRS GGSLTTSWAPWYEFVHDRV ASSFRPMPRV DGGVLTIRRRPQP LLPESASRAFQNF AEAVFTGPGR GLAEILRRHIPKRTYRSLADRHGI PDGGLPKDLTLTQWIALFQASQP SYAPGAPGTRMPGQGGGAGGRD YDSETSRAAVPGSRRYGPTRGGE PCAPRAQVRQTKGRQGARGSSY GRRTGR	MHHHHHHHHMAMRDSIPRRAD RDTLRRELGQNFLQDDRAVRNL VTHVEGDGRNVLEIGPGKGAITE ELVRSFDTVTVVEMDPHWAAHV RRKFEGERVTVFQGDFLDFRIPR DIDTVVGNVPGITTQILRSLLES TNWQSAALIVQWEVARKRAGRS GGSLTTSWAPWYEFVHDRV ASSFRPMPRV DGGVLTIRRRPQP LLPESASRAFQNF AEAVFTGPGR GLAEILRRHIPKRTYRSLADRHGI PDGGLPKDLTLTQWIALFQASQP SYALE
	PikR2 (UniProt ID: Q9ZGI7)	PikR2 truncated
Source organism	<i>S. venezuelae</i> strain ATCC 15439	
Expression vector	pET-24a(+)	
Expression host	<i>E. coli</i> BL21(AI)	
Complete amino-acid sequence	MHHHHHHHHMAFSPQGGRHEL GQNFLVDRSVIDEIDGLVARTKG PILEIGPGDGALTLPLSRHGRPITA VELDGRRAQRLGARTPGHVTVV HHDFLQYPLPRNPHVVVGNVVPF HLTTAIMRRLLLDAQHWHTAVLL VQWEVARRRAGVGGSTLLTAG WAPWYEFDLHSRVPARAFRMP GVDGGVLAIRRRSAPLVGQVKT	MHHHHHHHHMAFSPQGGRHEL GQNFLVDRSVIDEIDGLVARTKG PILEIGPGDGALTLPLSRHGRPITA VELDGRRAQRLGARTPGHVTVV HHDFLQYPLPRNPHVVVGNVVPF HLTTAIMRRLLLDAQHWHTAVLL VQWEVARRRAGVGGSTLLTAG WAPWYEFDLHSRVPARAFRMP GVDGGVLAIRRRSAPLVGQVKT

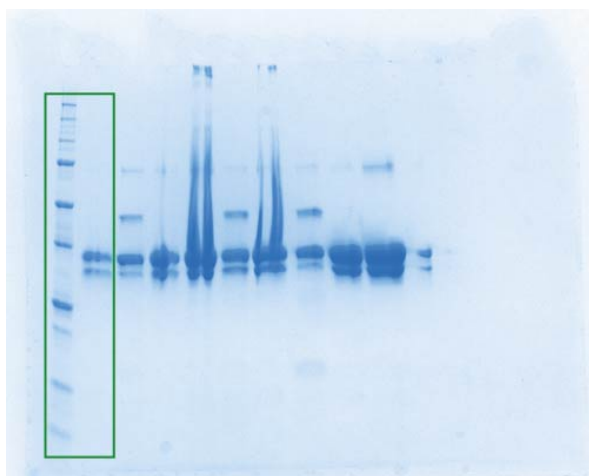
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FDGTAGGGAAGSHGAARVGAG	LE
HPGGRVSASRRGVPQARRGRGH	
AVRSSTGTEPRWGRGRAESA	

	ErmE (UniProt ID: P07287)	ErmE truncated
Source organism	<i>S. erythraea</i>	
Expression vector	pET-24a(+)	
Expression host	<i>E. coli</i> BL21(AI)	
Complete amino-acid sequence	MHHHHHHHHMSSSDEQPRPRR NQDRQHPNQNRPVLRTERDRN RRQFGQNFLRDRKTIARIAETA LRPDLPVLEAGPGEGLLTRELAD RARQVTSYEIDPRLAKSLREKLS GHPNIEVVNADFLTAEPPEPFAF VGAIPYGITSAIVDWCLEAPTIE ATMVTQLEFARKRTGDYGRWSR LTVMTWPLFEWVFEKVDRRLF KVPVKVDSAIMRLRRAEPLLEG AALERYESMVELCFTGVGGNIQ ASLLRKYPRRRVEAALDHAGVG GGAVVAYVRPEQWLRLFERLDQ KNEPRGGQPQRGRRTGGRDHGD RRTGGQDRGDRRTGGRDHRDRQ ASGHGDRSSGRNRDDGRTGER EQGDQGGRRGPSGGGRTGGRPG RRGGPGQR	MHHHHHHHHMSSSDEQPRPRR NQDRQHPNQNRPVLRTERDRN RRQFGQNFLRDRKTIARIAETA LRPDLPVLEAGPGEGLLTRELAD RARQVTSYEIDPRLAKSLREKLS GHPNIEVVNADFLTAEPPEPFAF VGAIPYGITSAIVDWCLEAPTIE ATMVTQLEFARKRTGDYGRWSR LTVMTWPLFEWVFEKVDRRLF KVPVKVDSAIMRLRRAEPLLEG AALERYESMVELCFTGVGGNIQ ASLLRKYPRRRVEAALDHAGVG GGAVVAYVRPEQWLRLFERLDQ KNEPRLE

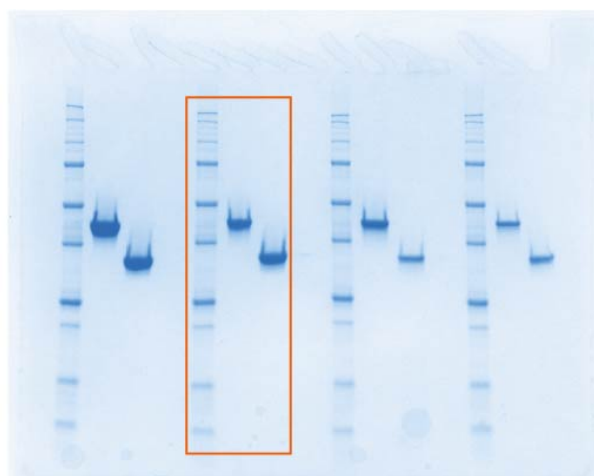


Supplementary Figure S1

Walleye stereo map of ErmE (PDB ID 6NVM) is superimposed onto the corresponding atomic model, shown in stick representation. $2mFo-DFc$ map is contoured at 1.0σ and centered around V177.



(a)



(b)

Supplementary Figure S2

Coomassie-stained SDS-PAGE. (a) PikR1 after HIC purification. (b) Full-length and truncated ErmE after SEC purification.