Supplementary Information

Common and distinct structural features of *Salmonella* injectisome and flagellar basal body

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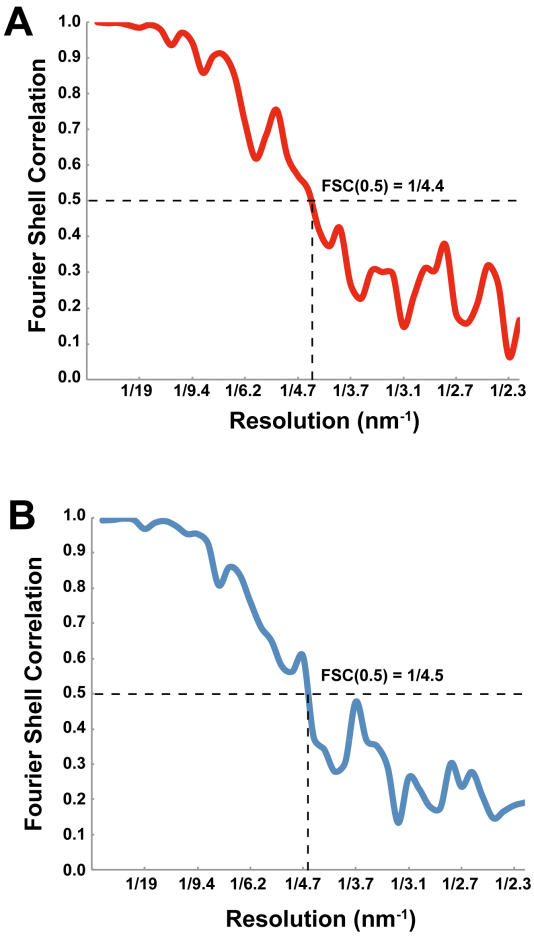

Supplementary Fig. 1. The resolution of 3D image reconstructions after subtomogram average. The resolution was estimated by the Fourier shell correlation at 0.5, and it was 4.4 nm for NC (A) and 4.5 nm for HBB (B).

Supplementary Table 1. Collection of T3SS homologs of the flagellum and injectisome from *Salmonella*, *Shigella*, *Yersinia* and enterohemorrhagic *E. coli* (2).

	flagellar T3SS	nonflagellar T3SS				
	Salmonella	*Salmonella*	*Shigella*	*Yersinia*	*E. coli**	
function	protein (amino acid)	protein (amino acid)	protein (amino acid)	protein (amino acid)	protein (amino acid)	function
		SipD (343)	IpaD (332)	LcrV (324)	EspA (192)	needle tip
hook	FlgK (553)	PrgI (80)	MxiH (83)	YscF (87)	EscF (73)	needle
		InvG (562)	MxiD (566)	YscC (607)	EscC (512)	outer membrane ring
		PrgJ (101)	MxiI (97)	YscI (115)	EscI (142)	inner rod
		InvH (147)	MxiM (142)	YscW (131)		assist in secretin insertion into OM
MS ring protein	FliF (560)	PrgK (252)	MxiJ (241)	YscJ (244)	EscJ (190)	inner membrane ring
C ring protein	FliG (331)	PrgH (392)	MxiG (371)	YscD (418)	EscD (406)	inner membrane ring
export apparatus	FliO (125)	-	-	-	-	
export apparatus	FliP (245)	SpaP (224)	Spa24 (216)	YscR (217)	EscR (217)	export apparatus
export apparatus	FliQ (245)	SpaQ (86)	Spa9 (86)	YscS (88)	EscS (89)	export apparatus
export apparatus	FliR (264)	SpaR (263)	Spa29 (256)	YscT (261)	EscT (258)	export apparatus
export apparatus	FlhA (692)	InvA (685)	MxiA (686)	YscV (704)	EscV (675)	export apparatus
export apparatus	FlhB (383)	SpaS (356)	Spa40 (342)	YscU (354)	EscU (345)	export apparatus
C ring protein	FliM (334)	SpaO (303)	Spa33 (293)	YscQ (307)	EscQ (305)	sorting platform
C ring protein	FliN (137)					
export apparatus	FliH (235)	OrgA (199)	MxiK (172)	YscK (209)	Orf4 (109)	sorting platform
		OrgB (226)	MxiN (226)	YscL (223)	EscL (204)	sorting platform
ATPase	FliI (456)	InvC (431)	Spa47 (430)	YscN (439)	EscN (446)	ATPase
export apparatus	FliJ (147)	InvI (147)	Spa13 (112)	YscO (154)		?
		InvE (372)	MxiC (355)	YopN (293)	SepL (351)	regulator translocation
hook length control	FliK (405)	InvJ (336)	Spa32 (292)	YscP (453)	Orf16 (138)	regulator
		OrgC (150)	MxiL (135)			?

**E. coli* is EHEC O157

Supplementary Table 2. Image processing statistics of subtomogram averaging.

Strain/plasmid	Relevant properties	sample	Tilt-series showing NC or HBB	Extracted particles	Contributed to averaging structure	Pixel size (nm)	defocus (μm)	Resolution (FSC 0.5) (nm)
SJW1103/pYVM031	Minicell wild-type	Needle complex	52	142	75	1.1	-4 ~ -7	4.4
		Hook basal body	90	105	48			4.5

Supplementary Movie 1. *Salmonella* mini-cells actively swimming in the M9 medium nearly at the same speed as the cells of normal size.