

Supplementary Table S1 | **Effectors of the *Salmonella* spp. T3SSs.**

* limited data on biological significance.

** not all may be physiologically relevant. Please refer to references cited.

SPI-1					
<i>Effector</i>	<i>Biochemical activity</i>	<i>Host post-translational modification</i>	<i>Host binding partners**</i>	<i>Host subcellular localization and effects</i>	<i>References</i>
AvrA	Acetyltransferase	Phosphorylation	MAP kinase kinases, p53	Inhibits NF-κB signalling and IL-8 production; acetylates p53	1-4
GtgE	Cysteine protease	Unknown	Rab29, Rab32, Rab38	Cleaves Rab29, Rab32 and Rab38 at regulatory switch regions to prevent their localization to the SCV	5, 6
SipA (SspA)	Stabilizes F-actin	Cleavage by caspase-3	F-actin, T-plastin; PERP	Inhibits depolymerization and increases actin bundling to facilitate invasion; Decreases the critical concentration of G-actin and increases the stability of F-actin, remains localized on the SCV, contributes to intestinal inflammation, promotes PMN migration across the intestinal epithelium; protects F-actin from villin-directed severing	7-12
SipB (SspB)	Translocon	Unknown	Unknown	Translocon, can activate caspase-1 and promote IL-1β and IL-18 release from macrophages*	13-16
SipC (SspC)	Translocon	Unknown	Actin, syntaxin6, vimentin	Translocon, can bundle and nucleate actin on insertion; can bind to intermediate filaments, contributes to intestinal inflammation	16-21
SopA	HECT E3 ubiquitin ligase	Ubiquitylation Cleavage by caspase-3	Unknown	Contributes to intestinal inflammation	10, 22-24
SopB (SigD)	GDI; phosphoinositide phosphatase	Ubiquitylation	Cdc42, inositol phosphates	Modulates actin by altering inositol phosphate levels; alters surface charge on the SCV. Implicated in membrane ruffling, initiation of M-cell development, and inhibition of SCV-lysosome fusion during infection, contributes to intestinal inflammation	25-31
SopD	Unknown	Unknown	Unknown	Activates fluid secretion in bovine ligated ileal loops and contributes to diarrhoea in calves and systemic disease in mice	32
SopE	GEF	Inactivated by proteasomal degradation	Rac1, Cdc42	With host factors regulates actin polymerization to promote invasion; activates caspase-1 to elicit gut inflammation	27, 33-36
SopE2	GEF	Unknown	Rac1, Cdc42	Activates Cdc42 and Rac1 to regulate actin; disrupts tight junctions; stimulates innate immune response in epithelial cells, contributes to intestinal inflammation	27, 30, 37, 38

SptP	GAP; tyrosine phosphatase	Ubiquitylation	Rac1, Cdc42, VCP	Inhibits Cdc42 and Rac1 to restore epithelial cell morphology after invasion; inhibits IL-8 production by epithelial cells; inhibits MAPK pathway by inhibiting Raf; dephosphorylates VCP to promote intracellular replication and ET formation; inhibits villin phosphorylation early in infection	11, 39-44
SPI-1 and SPI-2					
Effector	Biochemical activity	Host post-translational modification	Host binding partners**	Host subcellular localization and effects	References
SlrP	E3 ubiquitin ligase	Unknown	Unknown	Reduces redox-related signalling activity and triggers cell death; inhibits dendritic cell migration; inhibits antigen presentation	45-48
SspH1	E3 ubiquitin ligase	Unknown	PKN1	Inhibits NF- κ B dependent gene expression and IL-8 secretion, nuclear localization	40, 49
SteA	Unknown	Unknown	Unknown	Localizes to the Golgi network, unknown function	50
SteB	Unknown	Unknown	Unknown	Unknown function	50
SPI-2					
Effector	Biochemical activity	Host post-translational modification	Host binding partners**	Host subcellular localization and effects	References
GogB	Unknown	Unknown	Unknown	Unknown function	51
PipB	Unknown	Unknown	Unknown	Unknown function	52
PipB2	Unknown	Unknown	Kinesin-1	Recruits kinesin to SCV; important for peripheral movement of SCV; inhibits dendritic cell migration; inhibits antigen presentation	47, 48, 53-55
SifA	Unknown	Prenylated; S-acylated	SKIP, RhoA, Rab7, Rab9, PLEKHM1	Links SKIP and kinesin to the SCV and microtubule network to promote endosomal tubulation; role in fission of LAMP-1-positive vesicles from the SCV; inhibits dendritic cell migration; inhibits antigen presentation; interaction with PLEKHM1 promotes recruitment of the Rab7-HOPS complex to mediate phagolysosomal membrane delivery to the SCV	47, 48, 56-68
SifB	Unknown	Unknown	Unknown	Unknown function	69
SopD2	Unknown	Unknown	Unknown	Contributes to ET formation; inhibits antigen presentation	32, 48, 70
SpvB	ADP-ribosyltransferase	Unknown	Actin	Limits actin polymerization around the vacuole	71-74
SpvC	Phosphothreonine lyase	Unknown	pErk	Inhibits MAP kinase-mediated inflammatory responses	75, 76
SrgE	Unknown	Unknown	Unknown	Unknown function	77
SseF	Unknown	Unknown	Unknown	Important for microtubule bundling and perinuclear positioning of the SCV; inhibits dendritic cell migration	47, 78-80
SseG	Unknown	Unknown	Unknown	Important for microtubule bundling and perinuclear positioning of the SCV	78-80
SseI	Unknown	S-palmitoylated	IQGAP1, TRIP6, Filamin*	Inhibits macrophage and dendritic cell migration	47, 73, 81, 82

SseJ	Glycerophospholipid: cholesterol acyltransferase	Unknown	Cholesterol, phospholipids, RhoA	Esterifies cholesterol on the SCV	57, 63, 83-86
SseK1	Unknown	Unknown	Unknown	Unknown function	87
SseK2	Unknown	Unknown	Unknown	Unknown function	87
SseL	Deubiquitinase	Unknown	Unknown	Prevents accumulation of lipid droplets	88, 89
SspH2	E3 ubiquitin ligase	S-palmitoylated	Profilin, Filamin, SGT1	Localizes to apical surface; enhances Nod1-mediated IL-8 secretion; slows rate of actin polymerization; inhibits antigen presentation; inhibits dendritic cell migration	47, 48, 73, 90-93
SteC	Kinase	Unknown	MAPK, MEK	Regulates host cytoskeleton; forms mesh network of F-actin; restricts intracellular replication	50, 94, 95

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