

Supplemental Information

Supplemental Table 1. Table of significances for Figure 4K.^a

	0 <i>Yptb</i> Internalized								
	WT 37°C	$\Delta yscNU$	WT 26°C	$\Delta yopO$	$\Delta yopH$	$\Delta yopE$	<i>yopErec</i>	$\Delta yopEO$	$\Delta yopEH$
WT 37°C									
$\Delta yscNU$	****								
WT 26°C	****	ns							
$\Delta yopO$	ns	****	****						
$\Delta yopH$	ns	****	****	ns					
$\Delta yopE$	****	ns	ns	****	**				
<i>yopErec</i>	ns	****	****	ns	ns	****			
$\Delta yopEO$	****	ns	ns	****	**	ns	****		
$\Delta yopEH$	****	ns	ns	****	****	ns	****	ns	

	1-9 <i>Yptb</i> Internalized								
	WT 37°C	$\Delta yscNU$	WT 26°C	$\Delta yopO$	$\Delta yopH$	$\Delta yopE$	<i>yopErec</i>	$\Delta yopEO$	$\Delta yopEH$
WT 37°C									
$\Delta yscNU$	ns								
WT 26°C	ns	ns							
$\Delta yopO$	ns	ns	ns						
$\Delta yopH$	ns	ns	*	*					
$\Delta yopE$	ns	ns	*	ns	ns				
<i>yopErec</i>	ns	ns	ns	ns	ns	ns			
$\Delta yopEO$	****	****	****	****	**	**	***		
$\Delta yopEH$	ns	ns	ns	ns	ns	ns	ns	****	

	10+ <i>Yptb</i> Internalized								
	WT 37°C	$\Delta yscNU$	WT 26°C	$\Delta yopO$	$\Delta yopH$	$\Delta yopE$	<i>yopErec</i>	$\Delta yopEO$	$\Delta yopEH$
WT 37°C									
$\Delta yscNU$	****								
WT 26°C	****	ns							
$\Delta yopO$	ns	****	****						
$\Delta yopH$	ns	****	****	ns					
$\Delta yopE$	****	****	****	**	**				
<i>yopErec</i>	ns	****	****	ns	ns	***			
$\Delta yopEO$	ns	****	****	ns	ns	**	ns		
$\Delta yopEH$	****	ns	ns	****	****	***	****	****	

^a * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$; ns = no significance

Supplemental Table 2. Additional details related to quantification of Zombie Live/Dead analysis

Uninfected Monolayers			
	Avg % of Zombie ⁺ Extruding dead cells	Range of mCherry intensity amongst Zombie ⁺ Extruding dead cells	Geometric Mean of mCherry Intensity amongst Zombie ⁺ Extruding dead cells
Expt 1	0.4%	6x10 ⁶ -2x10 ⁸	7x10 ⁷
Expt 2	0.4%	6x10 ⁶ -1x10 ⁸	3x10 ⁷
Expt 3	0.04%	5x10 ⁶ -6x10 ⁷	2x10 ⁷

Uninfected Monolayers			
	Avg % Zombie ⁺ Non-extruding Cells	Range of mCherry Intensity amongst Zombie ⁺ Non-extruding cells	Geometric Mean of mCherry Intensity amongst Zombie ⁺ Non-extruding cells
Expt 1	3.1%	4x10 ⁴ -9x10 ⁷	5x10 ⁵
Expt 2	1.0%	9x10 ⁴ -9x10 ⁶	5x10 ⁵
Expt 3	0.4%	1x10 ⁵ -8x10 ⁵	4x10 ⁵

# M cells analyzed per experiment			
	UN ^(a,b)	WT 37°C ^(a,b)	$\Delta yscNU$ ^(a,b)
Expt 1	29 (0,2)	6 (1,2)	6 (0,3)
Expt 2	ND ^c	18 (2,5)	14 (0,2)
Expt 3	8 (0,0)	8 (0,3)	7 (0,0)

^a Number of Zombie⁺ cells in intensity range of Extruding Dead Cells

^b Number of Zombie⁺ cells in intensity range of Non-extruding cells

^c ND = Not determined

Supplemental Table 3. Additional details related to quantification of cleaved caspase 3 analysis

Uninfected Monolayers			
	Avg % of CC3 ⁺ cells	Range of mCherry Intensity amongst CC3 ⁺ cells	Geometric Mean of mCherry Intensity amongst CC3 ⁺ cells
Expt 1	1.5%	1x10 ⁵ -1x10 ⁶	3x10 ⁵
Expt 2	2.2%	1x10 ⁵ -5x10 ⁶	4x10 ⁵
Expt 3	5.1%	1x10 ⁵ -3x10 ⁷	4x10 ⁵

WT 37°C-Infected Monolayers		
	Avg % of CC3 ⁺ cells	# M cells analyzed per expt ^(a)
Expt 1	0.2%	10 (1)
Expt 2	0.8%	10 (0)
Expt 3	5.1%	20 (3)

^a Number CC3+ M cells per experiment

Supplemental Table 4. Table of significances for Figure 6J.^a

0 <i>Yptb</i> Internalized					
	WT 37°C	$\Delta yopE$	<i>yopER144A</i>	<i>yopESptP</i>	<i>yopEL109A</i>
WT 37°C					
$\Delta yopE$	****				
<i>yopER144A</i>	****	ns			
<i>yopESptP</i>	ns	**	**		
<i>yopEL109A</i>	ns	****	****	ns	

1-9 <i>Yptb</i> Internalized					
	WT 37°C	$\Delta yopE$	<i>yopER144A</i>	<i>yopESptP</i>	<i>yopEL109A</i>
WT 37°C					
$\Delta yopE$	ns				
<i>yopER144A</i>	ns	ns			
<i>yopESptP</i>	ns	ns	ns		
<i>yopEL109A</i>	ns	ns	ns	ns	

10+ <i>Yptb</i> Internalized					
	WT 37°C	$\Delta yopE$	<i>yopER144A</i>	<i>yopESptP</i>	<i>yopEL109A</i>
WT 37°C					
$\Delta yopE$	***				
<i>yopER144A</i>	****	ns			
<i>yopESptP</i>	ns	ns	ns		
<i>yopEL109A</i>	ns	**	***	ns	

^a ** $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$; ns = no significance

Supplemental Table 5. *Yersinia* strains used in this study.

Strain Number	Description	Original Strain #	Reference for original strain
ACF053	<i>Yptb</i> YPIII pIB1, pACYC184-ptet::GFP	JM301	[1]
ACF054	<i>Yptb</i> YPIII pIB1, $\Delta yadA$ + pACYC184-ptet::GFP	MM92	this study
ACF055	<i>Yptb</i> YPIII pIB1, Δinv + pACYC184-ptet::GFP	ERG9	this study
ACF056	<i>Yptb</i> YPIII pIB1, $\Delta inv/yadA$ + pACYC184-ptet::GFP	FM420	this study
ACF057	<i>Yptb</i> YPIII pIB1, YopETEM	FM324	[2]
ACF068	<i>Yptb</i> YPIII pIB1, $\Delta yopE/sycE$ +pACYC184-ptet::GFP	LL31	[1]
ACF073	<i>Yptb</i> YPIII pIB1, $\Delta yscN-U$ +pACYC184-ptet::GFP	JMB31	[3]
ACF074	<i>Yptb</i> YPIII pIB1	JM301	[1]
ACF076	<i>Yptb</i> YPIII pIB1, pMMB67EH-ptetA::mCherry	JM301	[1]
ACF085	<i>Yptb</i> YPIII pIB1, $\Delta yopE$ + YopEL109A +pACYC184-GFP	WS315a	[4]
ACF087	<i>Yptb</i> YPIII pIB1, $\Delta yopE$ + YopER144A + pACYC184-GFP	WS312	[4]
ACF091	<i>Yptb</i> YPIII pIB1, $\Delta yopE$ + YopE1-100SptP166-293 + pACYC184-ptet::GFP	WS352	[4]
ACF093	<i>Yptb</i> YPIII pIB1, $\Delta yopE$ + YopE recombined +pACYC184-ptet::GFP	WS338	[4]
ACF112	<i>Yptb</i> YPIII pIB1, $\Delta yopH$ + pACYC184-ptet::GFP	this study	this study
ACF113	<i>Yptb</i> YPIII pIB1, $\Delta yopEH$ + pACYC184-ptet::GFP	this study	this study
ACF114	<i>Yptb</i> YPIII pIB1, $\Delta yopO$ + pACYC184-ptet::GFP	this study	this study
ACF115	<i>Yptb</i> YPIII pIB1, $\Delta yopEO$ + pACYC184-ptet::GFP	this study	this study

References for Supplemental Information

1. Logsdon, L.K. and J. Meccas, *Requirement of the Yersinia pseudotuberculosis effectors YopH and YopE in colonization and persistence in intestinal and lymph tissues*. Infect Immun, 2003. **71**(8): p. 4595-607.
2. Maldonado-Arocho, F.J., et al., *Adhesins and host serum factors drive Yop translocation by yersinia into professional phagocytes during animal infection*. PLoS Pathog, 2013. **9**(6): p. e1003415.
3. Balada-Llasat, J.M. and J. Meccas, *Yersinia has a tropism for B and T cell zones of lymph nodes that is independent of the type III secretion system*. PLoS Pathog, 2006. **2**(9): p. e86.
4. Songsunghong, W., et al., *ROS-inhibitory activity of YopE is required for full virulence of Yersinia in mice*. Cell Microbiol, 2010. **12**(7): p. 988-1001.