

Table S1: Biolog comparison of *B. abortus* 2308 vs. *B. abortus* 2308::DybeY

Plate	Substrate in Well
1	D,L-Malic Acid
1	L-Malic Acid
2A	Laminarin
2A	Butyric Acid
2A	Caproic Acid
10	pH4.5 + Methionine
10	pH4.5+L-Norvaline
12B	Dodecyltrimethyl ammonium bromide
14A	Fusaric acid
14A	Promethazine
15B	Alexidine
16A	Dichlofluanid
16A	1-Chloro-2,4-dinitrobenzene
16A	Chloroxylenol
17A	Phenylarsine oxide
18C	Sodium m-periodate
18C	2-Phenylphenol
18C	Lidocaine
18C	Antimony (III) chloride
18C	Pentachloro-phenol
18C	Azathioprine
19	Josamycin
19	Phenethicillin
19	Lawsone
20B	Thioridazine
20B	Patulin
20B	Tetrazolium violet

Biolog Phenotype Microarray analysis was performed by inoculating Biolog Phenotype Microarray plates with 10^8 CFU/well and incubated at 37°C for 84 hours. Each well was measured by spectroscopy, O.D. 590 nm. Substrates listed include differences in growth between *B. abortus* 2308 and the *ybeY* deletion strain. Cells highlighted in green indicate better growth by *ybeY* deletion strain compared to the parental strain, and cells highlighted in red indicated better growth in the parental strain compared to the *ybeY* deletion strain.

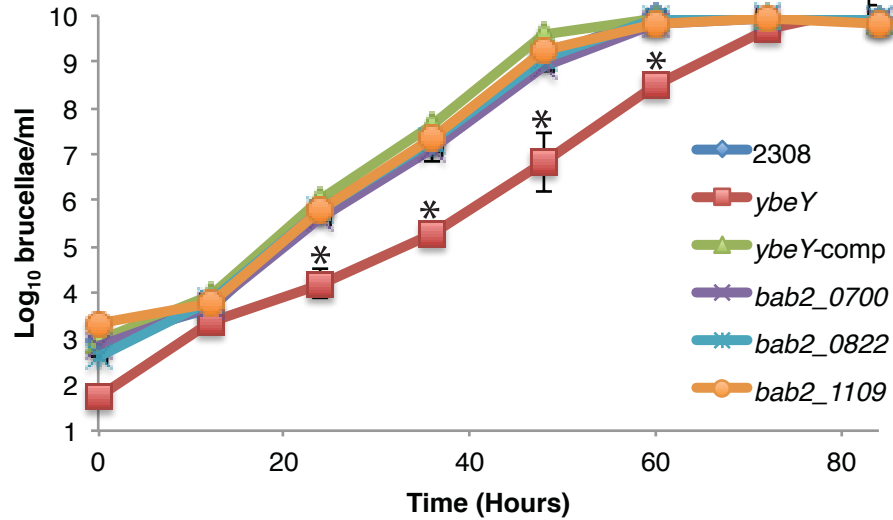


Figure S1. Growth kinetics of *B. abortus* 2308 deletion strains.

Growth curve of *Brucella abortus* strains in rich medium. *B. abortus* 2308, *B. abortus* 2308:: $\Delta ybeY$, and *B. abortus* 2308:: $\Delta ybeY$ -comp, *B. abortus* 2308:: $\Delta bab2_{0700}$, *B. abortus* 2308:: $\Delta bab2_{0822}$, *B. abortus* 2308:: $\Delta bab2_{1109}$, were grown in brucella broth and colony forming units/ml was monitored by serial dilution. The asterisk (*) denotes a statistically significant difference ($P < 0.05$) between the *ybeY* deletion strain and the parental strain 2308. There was no significant difference between the *ybeY*-complemented strain, the *bab2_{0700}*, *bab2_{0822}*, or *bab2_{1109}* deletion strains and the parental strain 2308.