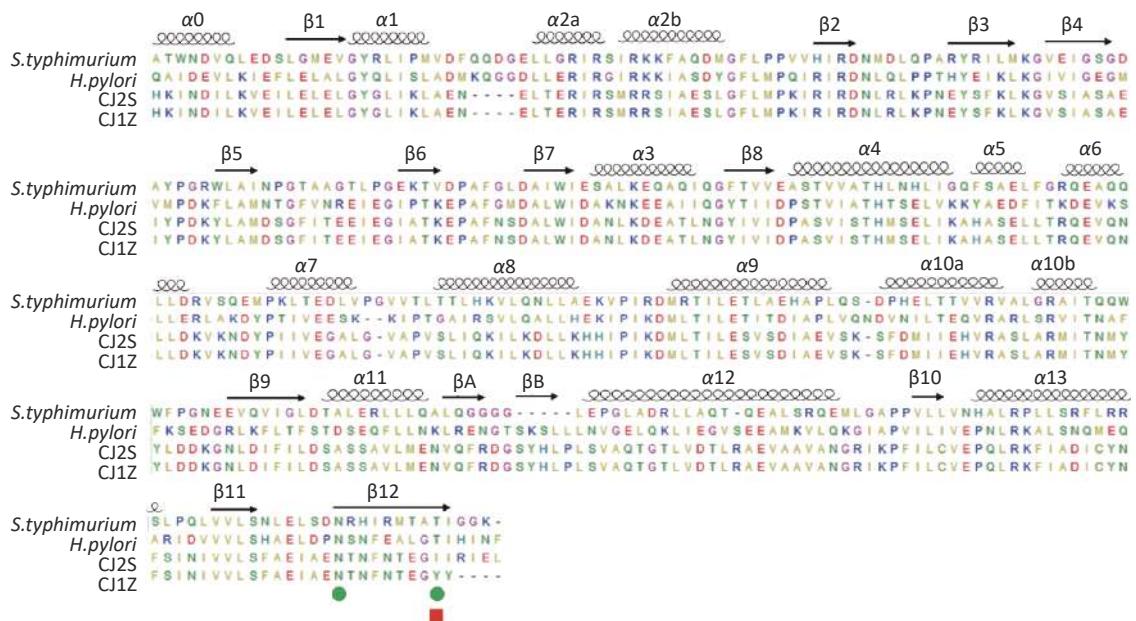


**Supplementary Figure S1.** Structure of the cytoplasmic domain of FlhA from *Helicobacter pylori* (3my.1.A).



**Supplementary Figure S2.** Structurally based alignment of FlhA<sub>C</sub> homologue sequences. These are labeled according to the *Salmonella typhimutum* and *Helicobacter pylori* FlhA<sub>C</sub> structure. *Salmonella typhimutum* FlhA deletion mutants are marked by green circles. *Campylobacter jejuni* FlhA I719Y mutation is marked with a red square.

**Supplementary Table S1.** All SNPs predicted in the mutant and wild strains

Scaffold	CJ1Z	Base	Base	CJ2S	CDS
Scaffold1	51967	C	-	51966	flhA
Scaffold1	79810	G	A	79809	hypothetical protein
Scaffold1	471433	-	C	471226	hypothetical protein
Scaffold13	6300	-	C	6301	hypothetical protein
Scaffold13	9164	C	-	9164	intergenic region
Scaffold15	2182	C	-	2372	hisC3
Scaffold26	298	C	-	297	intergenic region
Scaffold27	292	A	C	292	intergenic region
Scaffold27	293	G	A	293	intergenic region
Scaffold27	295	T	A	295	intergenic region
Scaffold4	5943	C	-	123798	hypothetical protein
Scaffold4	12536	-	T	117178	hypothetical protein
Scaffold4	12536	-	T	117179	hypothetical protein
Scaffold4	12536	-	C	117180	hypothetical protein
Scaffold4	12536	-	T	117181	hypothetical protein
Scaffold4	12536	-	A	117182	hypothetical protein
Scaffold4	12536	-	T	117183	hypothetical protein
Scaffold4	12536	-	C	117184	hypothetical protein
Scaffold4	12536	-	T	117185	hypothetical protein
Scaffold4	12536	-	N	117186	hypothetical protein
Scaffold4	12536	-	N	117187	hypothetical protein
Scaffold4	12536	-	N	117188	hypothetical protein
Scaffold4	12536	-	N	117189	hypothetical protein
Scaffold4	12536	-	N	117190	hypothetical protein
Scaffold4	12536	-	N	117191	hypothetical protein
Scaffold4	12536	-	N	117192	hypothetical protein
Scaffold4	12536	-	N	117193	hypothetical protein
Scaffold4	12536	-	N	117194	hypothetical protein
Scaffold4	12536	-	N	117195	hypothetical protein
Scaffold4	12536	-	N	117196	hypothetical protein
Scaffold4	12536	-	N	117197	hypothetical protein
Scaffold4	12536	-	N	117198	hypothetical protein
Scaffold4	12536	-	N	117199	hypothetical protein
Scaffold4	12536	-	N	117200	hypothetical protein
Scaffold4	12536	-	N	117201	hypothetical protein
Scaffold4	12536	-	N	117202	hypothetical protein
Scaffold4	12536	-	N	117203	hypothetical protein
Scaffold4	12536	-	N	117204	hypothetical protein
Scaffold4	12536	-	N	117205	hypothetical protein
Scaffold4	12612	-	T	117097	hypothetical protein
Scaffold4	12612	-	A	117098	hypothetical protein
Scaffold4	12612	-	T	117099	hypothetical protein
Scaffold4	12612	-	C	117100	hypothetical protein
Scaffold4	12612	-	T	117101	hypothetical protein
Scaffold5	36860	G	-	36939	kdpA 3
Scaffold7	79979	-	C	22919	intergenic region
Scaffold7	79979	-	C	22920	intergenic region
Scaffold8	71610	-	C	71611	intergenic region