## Host Determinants of Expression of the *Helicobacter pylori* BabA Adhesin

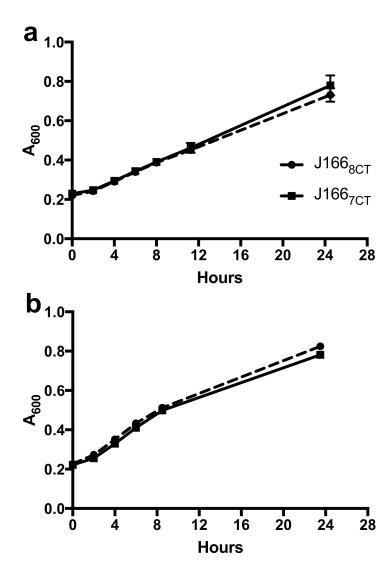
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## **Supplementary Files**

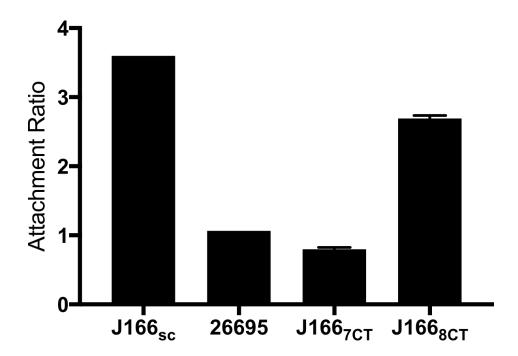
## Supplementary Table S1. Mouse Strains

Strain	Gender	Vendor <sup>a</sup>
C57BL/6	Female	Taconic
RAG2-/-	Female	Taconic
C57BL/6	Female	Jackson Laboratory
MyD88-/-	Female	Jackson Laboratory
TLR2-/-	Female	Jackson Laboratory
TLR4-/-	Female	Jackson Laboratory
FVB/N	Male/Female	Charles River Laboratories
Le <sup>b</sup> transgenic	Male/Female	Colony maintained

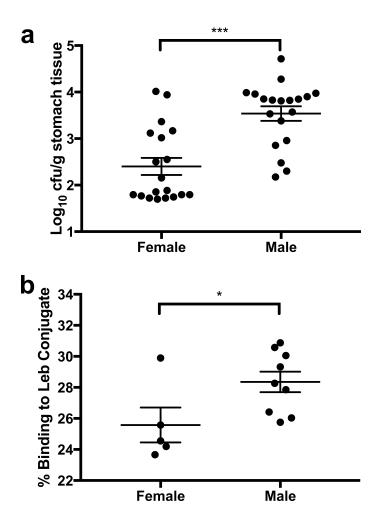
<sup>&</sup>lt;sup>a</sup> Jackson Laboratory, Sacramento, CA, USA; Taconic, Germantown, NY, USA; Charles River Laboratories, Wilmington, MA, USA



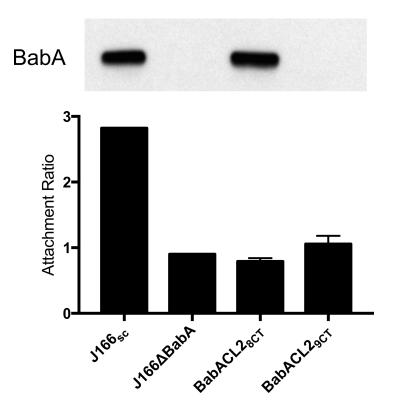
Supplementary Figure S1. Growth curves of J166<sub>8CT</sub> and J166<sub>7CT</sub>. Mean ( $\pm$ SEM) A<sub>600</sub> for 3 individual clones of J166<sub>8CT</sub> and J166<sub>7CT</sub> grown in Brucella broth overnight showed no differences in growth rate. The experiment was conducted twice (A and B) to ensure that subtle, non-significant variation in growth rate was not robust.



**Supplementary Figure S2.** Le<sup>b</sup> ELISA assay to detect functional BabA expression in *H. pylori* clones. Clones of J166sc engineered with 8 or 7 CT repeats in the 5' end of *babA* were evaluated for attachment to Le<sup>b</sup> using an ELISA. The average attachment ratios for three clones of J166<sub>8CT</sub> and J166<sub>7CT</sub> are shown. *H. pylori* J166<sub>SC</sub> and 26695 served as positive and negative controls, respectively.



Supplementary Figure S3. *H. pylori* J99 colonization and expression of BabA is greater in male than female Le<sup>b</sup> mice. Experiments were approved by the local ethical committee for animal studies at the Medical Faculty of Umeå University, Umeå, Sweden (A 120-06 from 10.11.2006). *H. pylori* J99<sup>1,2</sup> was grown on Brucella agar for 24 hours and suspended in Brucella broth at 10<sup>8</sup> CFU/mL. Mice were challenged intragastrically with 200µL (2 x 10<sup>7</sup> CFU) of bacterial suspension twice per week for two weeks using a ball-tipped disposable feeding needle. Four weeks after the last dose was administered, the homogenized stomach tissues were cultured on Brucella agar. A) *H. pylori* colonization of each mouse stomach, as determined by enumeration of *H. pylori* colonies when homogenized stomach tissues were plated on Brucella agar, is shown as CFU/gram of stomach tissue. Ten female mice that had no detectable colonization are shown at the limit of detection. B) Relative expression of functional BabA (binding to Le<sup>b</sup>) was determined using the RIA assay to analyze total cultured *H. pylori* stomach contents from a subset of the mice. \*\*\*P = 0.0002, \*P<0.05 (Mann-Whitney U)



**Supplementary Figure S4. Anti-BabA** western blot and Le<sup>b</sup> ELISA assay to detect BabA expression and function in *H. pylori* clones. Clones of BabACL2 with 8 or 9 CT repeats in the 5' end of *babA* were evaluated for expression of BabA by western blot (upper panel) and attachment to Le<sup>b</sup> using an ELISA (lower panel). The average attachment ratios for three clones of BabACL2<sub>8CT</sub> and BabACL2<sub>9CT</sub> are shown. *H. pylori* J166<sub>SC</sub> and J166ΔBabA served as positive and negative controls, respectively.

## **Supplementary References**

- 1. Alm, R. A. *et al.* Genomic-sequence comparison of two unrelated isolates of the human gastric pathogen Helicobacter pylori. *Nature* **397**, 176-180, doi:10.1038/16495 (1999).
- 2. Styer, C. M. *et al.* Expression of the BabA adhesin during experimental infection with Helicobacter pylori. *Infect Immun* **78**, 1593-1600, doi:10.1128/IAI.01297-09 (2010).