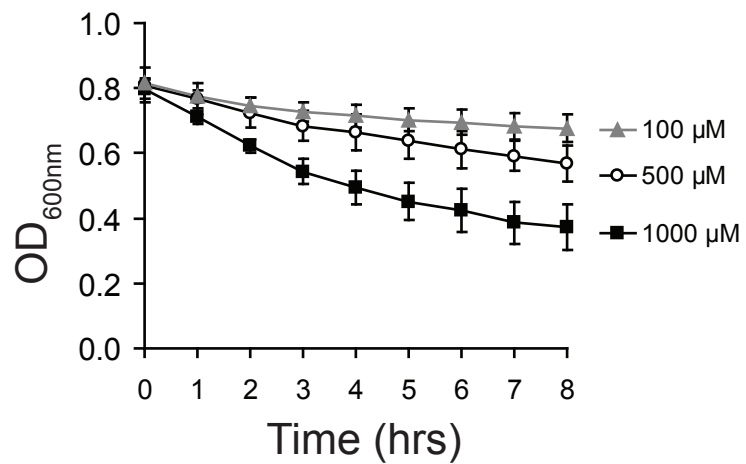
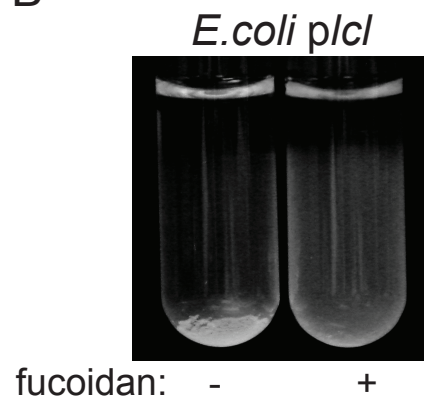
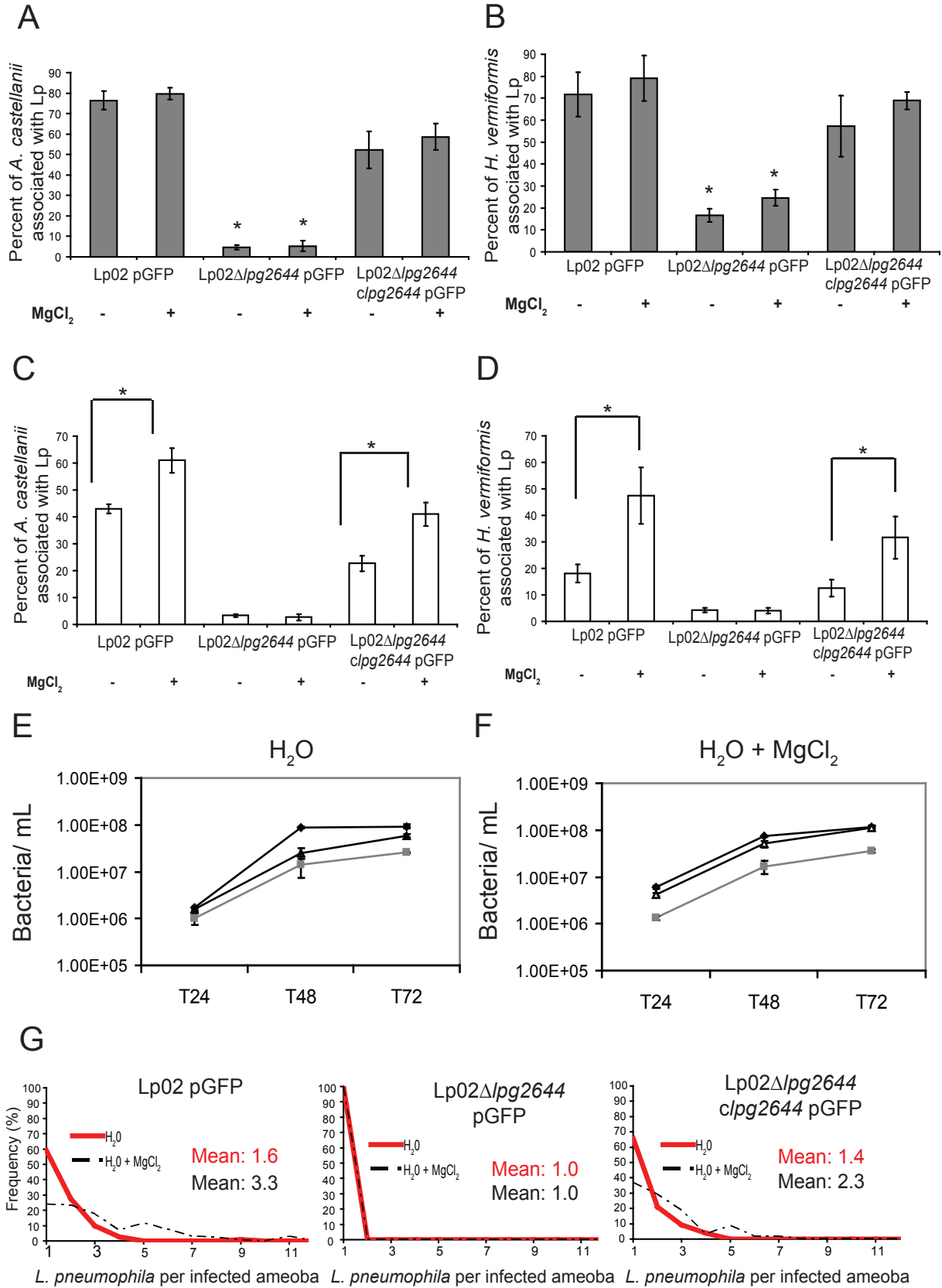


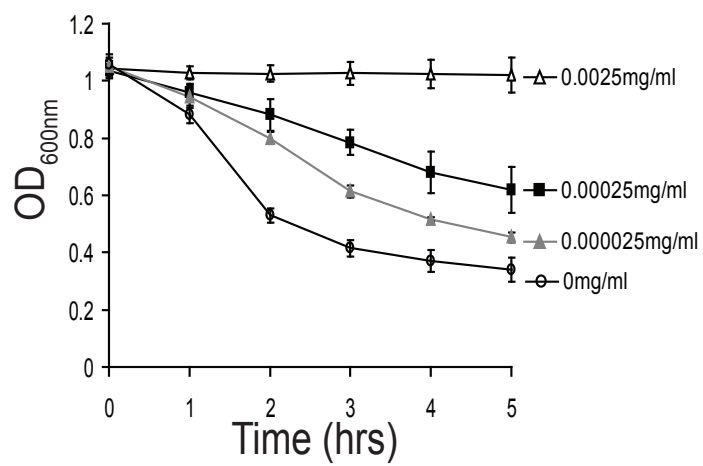
A



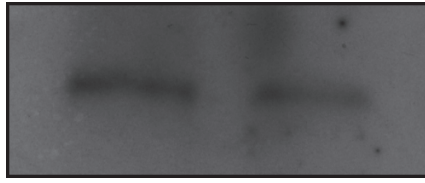
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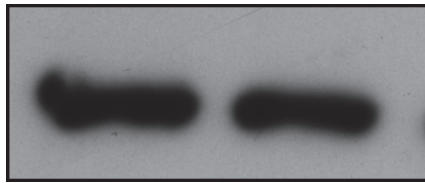




anti-FlaA



anti-Icdh



Lp02
pGFP

Lp02Δ/pg2644
pGFP

Table S1. Primers used in this study

Code	Primer	Amplification target	Sequence 5' to 3'
1	<i>lpg2644</i> F	<i>lpg2644</i>	GAAATAAAGAATGATACATCGA
2	<i>lpg2644</i> R		GCAAAGCGAATTTATGAACA
3	<i>lpg2644</i> <i>Bsp</i> 1 F		TGCGTATCATGATACATCGAAATAAAGTC
4	<i>lpg2644</i> <i>Eco</i> R1 R		GTTACGAATTCTTAAAAGGCTCTTACAGCAC

Figure S1. Lcl promotes divalent cation dependent sedimentation in *E.coli* and that is inhibited by fucoidan. (A) Sedimentation kinetics of *E.coli plcl* in deionized water in the presence of 1000 μ M, 500 μ M and 100 μ M MgCl₂. (B) Sedimentation of *E. coli plcl* in deionized water with 1000 μ M MgCl₂ in the absence or presence of 0.25 mg/ml fucoidan.

Figure S2. Lcl does not influence intracellular replication rate of *L. pneumophila* in *A. castellanii*. Infection of *A. castellanii* by Lp02 pGFP, Lp02 Δ lpg2644 pGFP and Lp02 Δ lpg2644 clpg2644 pGFP in deionized water in the absence or presence of 500 μ M MgCl₂ measured by microscopy (A) after centrifugation (grey bars) and (C) in non-centrifuged conditions (white bars). Infection of *H. vermiformis* in deionized water in the absence or presence of 500 μ M MgCl₂ measured by flow cytometry (B) after centrifugation (grey bars) and (D) in non-centrifuged conditions (white bars). Release of Lp02 pGFP (black diamonds), Lp02 Δ lpg2644 pGFP (grey squares) and Lp02 Δ lpg2644 clpg2644 pGFP (white triangles) into the supernatant measured by flow cytometry during *A. castellanii* infections performed in (E) deionized water and in (F) deionized water with 500 μ M MgCl₂. (G) Quantification of the number of *L. pneumophila* per infected *A. castellanii* in non-centrifuged conditions in the absence or presence of 500 μ M MgCl₂ water in deionized water.

Figure S3. Fucoidan inhibits *L. pneumophila* sedimentation in a dose dependent manner. Sedimentation kinetics of Lp02 in deionized water 500 μ M MgCl₂ with the addition of 0, 2.5X10⁻⁵, 2.5X10⁻⁴ and 2.5X10⁻³ mg /ml fucoidan.

Figure S4. Deletion of Lcl does not impact flagella expression. Anti-FlaA immunoblots with cell lysate from Lp02 pGFP and Lp02Δ*lpg2644* pGFP.

Table S1. Primers used in this study