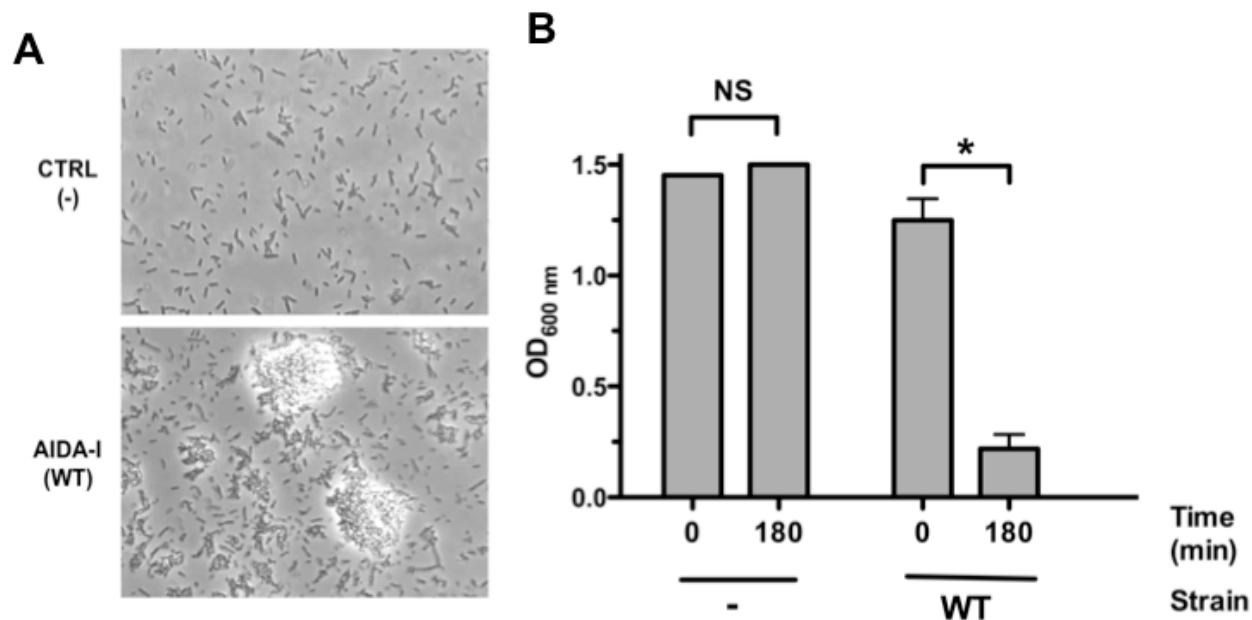
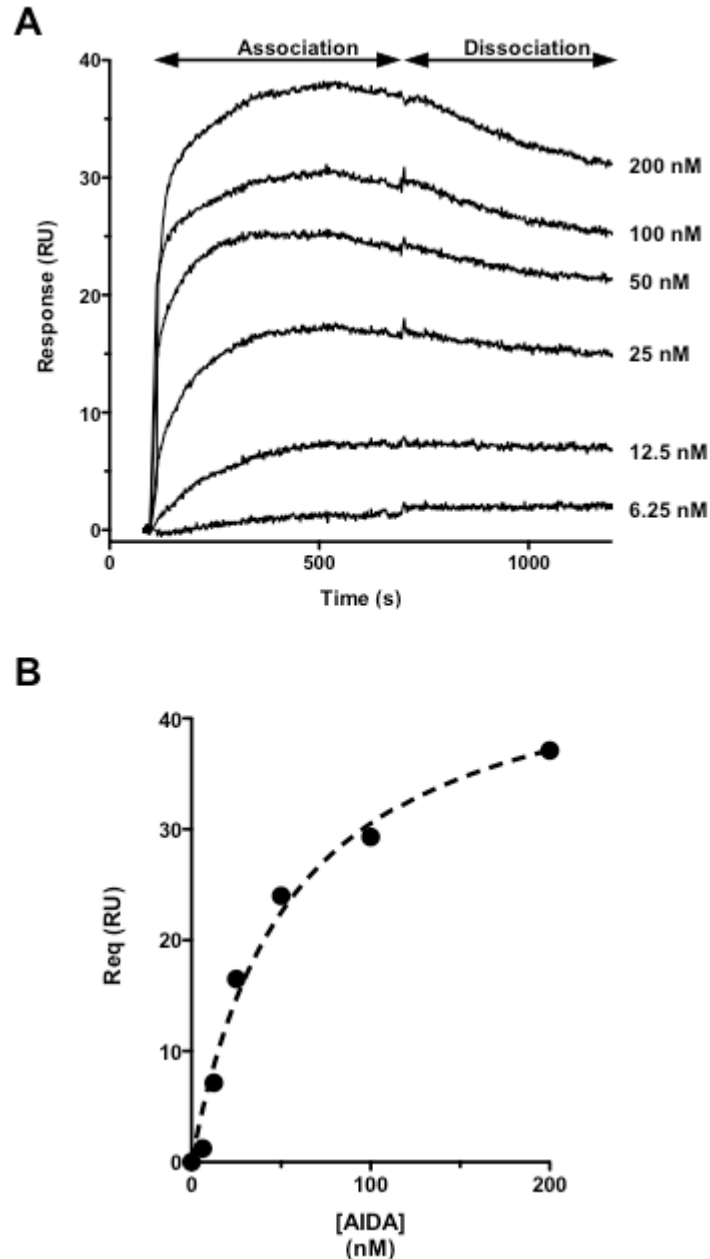


SUPPLEMENTAL DATA



Supplementary Fig. 1: Auto-aggregation of bacteria expressing AIDA-I.

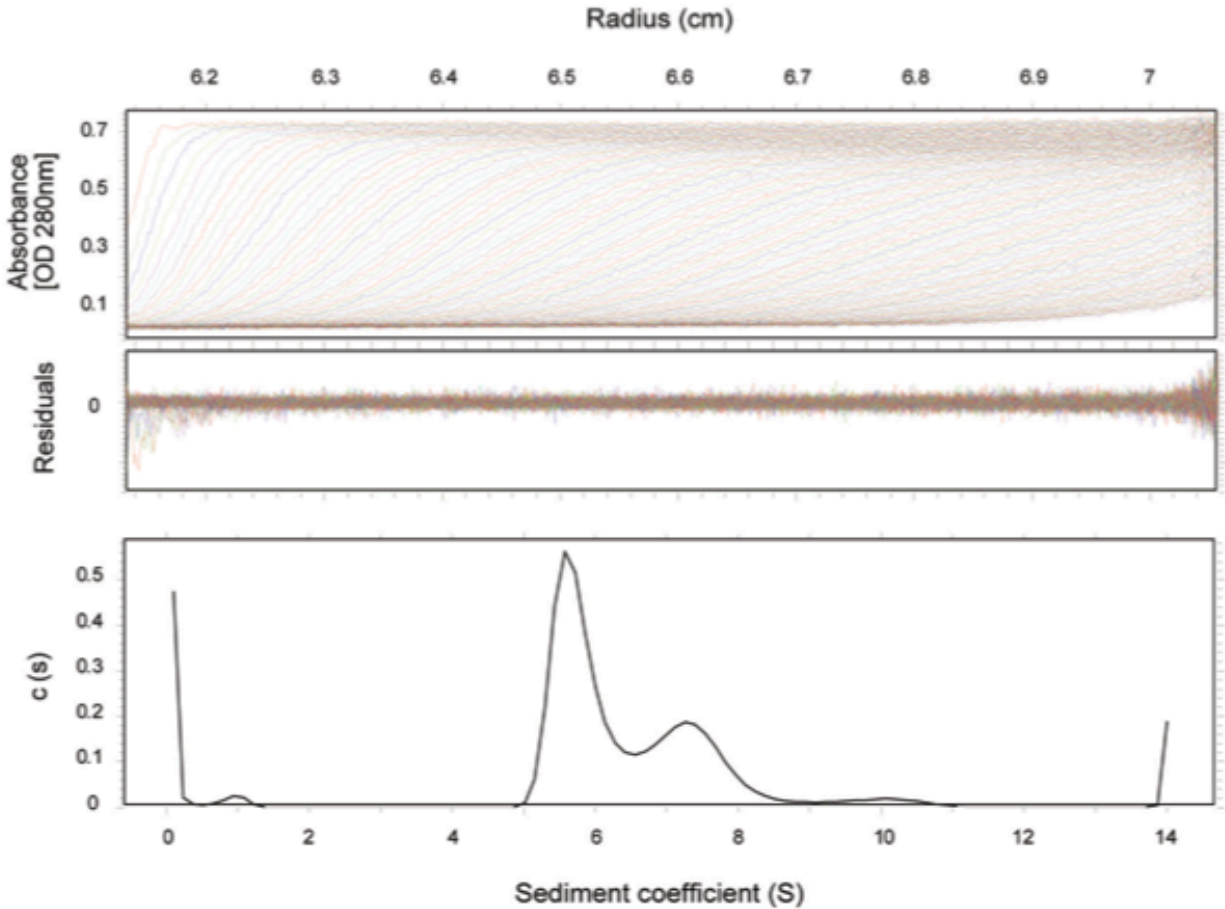
(A) Samples of overnight cultures of a strain of *Escherichia coli* bearing an empty vector (CTRL, -) or a plasmid expressing AIDA-I (WT) were spotted on a microscope slide, incubated at 4°C and aggregates of bacteria were examined after 180 min of incubation with a phase-contrast microscope. (B) The same overnight cultures were left standing at 4°C and OD_{600nm} at the top of the culture were measured at the beginning of the assay and after 180 min. The assays were performed three times in duplicates and columns were compared by a two-way ANOVA and Bonferroni post-tests (* indicates statistical significance, $p < 0.05$; NS, not significant).



Supplementary Fig. 2: AIDA-AIDA interactions monitored by Surface Plasmon Resonance (SPR) on a very low-density AIDA-I surface.

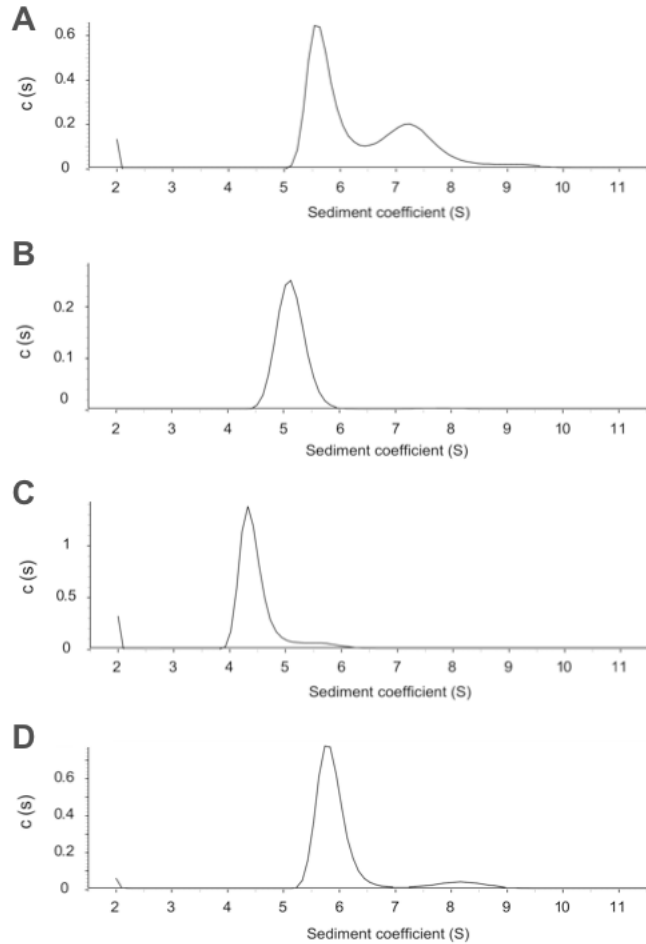
(A) SPR analysis was performed on BIAcore CM4 chips on which ~ 250 RU of purified AIDA-I was immobilized by amine-coupling. Soluble AIDA-I (0 - 200 nM) was injected in HBS-ET buffer (10 mM Hepes pH 7.4, 150 mM NaCl, 3 mM EDTA, 0.0005% Tween-20) at 50 μ l/min.

(B) The steady-state amounts bound (Req) were plotted against the concentration of AIDA-I and analyzed according to the steady-state affinity model with the BIAevaluation software in order to calculate an equilibrium dissociation constant. This analysis yielded a K_D of ~56 nM.



Supplementary Fig. 3: Sedimentation profile of purified wild-type AIDA-I in TBS observed by AUC.

In this representative profile, 5 μ M of purified wild-type AIDA-I in 50 mM Tris-HCl pH 8, 150 mM NaCl was sedimented in an analytical ultracentrifuge at 30,000 rpm, with absorbance scans monitored at 280 nm in 10 min intervals over a total spin time of 4-6 hours at 20°C. The top panel shows the absorbance at 280 nm that was observed. The middle and lower panels show the residuals and results, respectively, of the fitting of the experiment to the sedimentation of theoretical species of the indicated sedimentation coefficient.



Supplementary Fig. 4: Sedimentation profiles observed by AUC.

Sedimentation coefficients observed from sedimentation velocity experiments performed as in Supplementary Fig. 3 with (A) wild-type AIDA-I in 50 mM Tris-HCl pH 8, 150 mM NaCl; (B) I24 in 50 mM Tris-HCl pH 8, 150 mM NaCl; (C) wild-type AIDA-I in 50 mM Tris-HCl pH 8, 1 M NaCl or (D) wild-type AIDA-I in 50 mM Tris-HCl pH 8, 150 mM NaCl, 0.5% sodium deoxycholate.