**Protocol S1**

**Monostrain biofilm production**

MB was inoculated with PBS suspensions of *V. owensii* DY05, DY05[GFP] or candidate probionts (initial concentration 1 x 107 CFU mL-1) in Nunc™ (NUN167008) microwell plates (final well volume 200 µL). Separate plates were used for each incubation period (12, 24, 36, 48, 72 and 96 h at 28oC) and treatments were carried out in hextuplicate. After incubation, wells were washed 3x in 200 µL PBS to remove planktonic and nonadherent cells. Two hundred microlitres of 0.4% CV was added to the wells and incubated at room temperature for 20 min. After staining, CV was removed and the wells were washed 3x in 200 µL PBS. The CV-stained biofilm was solubilised in 200 μL 95% ethanol and absorbance (OD595nm) was measured using a Wallac Victor2 1420 multilabel counter. Measurements were adjusted by subtracting background absorbance generated from a MB control.