Supplementary Materials

Lipids as Integral Components in Mussel Adhesion

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Fig. S1. Hoechst and FM1-43FX staining and SEM imaging of a plaque. a: Hoechst staining; b: FM1-43FX staining; c: overlaying of Hoechst and FM1-43FX staining; d: e, f: control. Scale bar: 100 μ m; g: SEM imaging of a plaque, scale bar: 100 μ m; h: SEM image of a plaque, scale bar: 1 μ m.



Fig. S2. CLSM images of ORO staining of plaque. a: plaque; b: control. Scale bar: 100 μ m.



Fig. S3. CLSM images of Fluoresceinamine staining of a byssal thread. a: fresh thread; b: one-week-old thread; c, d: control. Scale bar: $10 \mu m$.



Fig. S4. CLSM images of FM1-43FX staining of a normal byssal thread. a, c: scale bar 100 μ m; b, d: scale bar 10 μ m; a, b: FM1-43FX staining; c, d: control.



Fig. S5. CLSM images of Fluoresceinamine staining of a byssal thread. a, c: scale bar 100 μ m; b, d: scale bar 10 μ m; c, d: control.



Fig. S6. Fatty acids compositions in different kinds of mussels. *Mytilus galloprovincialis* (slash pattern, first in each group); *Mytilus coruscus* (solid pattern, second in each group); *Mytilus californianus* (grid pattern, third in each group).