Supplementary Information
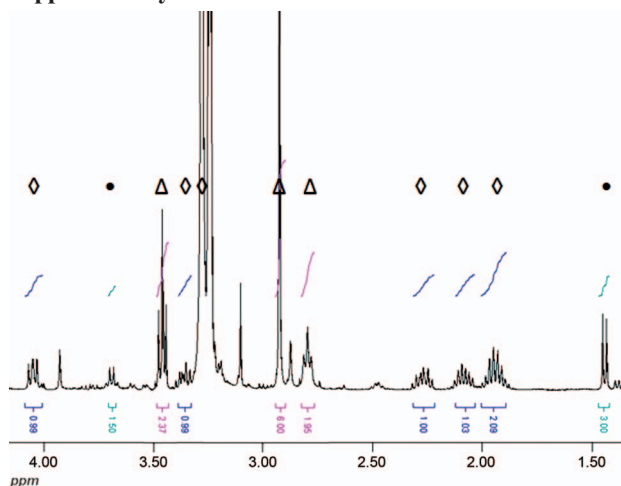

Figure S1. ¹H-NMR-spectrum (600MHz, CD₃OD) of the active LH20 fraction: alanine (●), proline (◇), DMSP (Δ). One proton of proline falls together with the solvent signal. Given values of integrals represent intensities within the compounds, not between different compounds.

DMSP
^{1}H-NMR (600 MHz, CD₃OD) δ ppm 3.49 (t, J = 6.77 Hz [2H]), 2.93 (s, [6H]), 2.74 (t, J = 6.79 Hz [2H]).
^{13}C-NMR (150 MHz, CD₃OD) δ ppm 175.08, 41.88, 30.21, 26.33

Proline
^{1}H-NMR (600 MHz, CD₃OD) δ ppm 4.05 (dd, J = 8.48, 6.61 Hz [1H]), 3.42–3.34 (m [1H]), 3.22–3.17 (based on COSY and HSQC), 2.28 (m [1H]), 2.09 (m [1H]), 2.01–1.88 (m [2H]).
^{13}C-NMR (150 MHz, CD₃OD) δ ppm 176.75, 62.46, 47.38, 30.24, 24.95.

Alanine
^{1}H-NMR (600 MHz, CD₃OD) δ ppm 3.67 (m [1H]), 1.45 (d, J = 7.20 Hz [3H]).
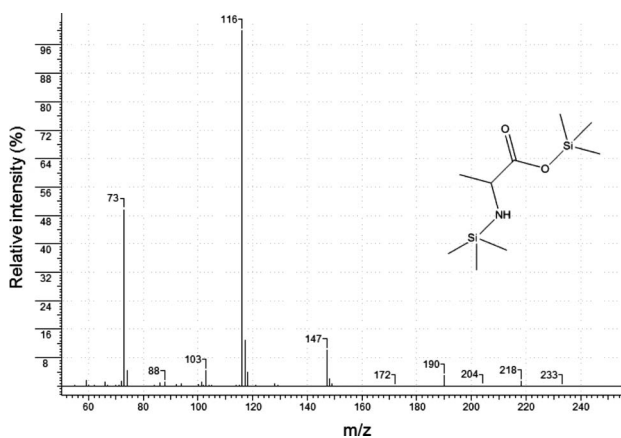^{13}C-NMR (150 MHz, CD₃OD) δ ppm 176.28, 51.59, 17.00.

Figure S2. Mass spectrum of alanine derivatised to (S)-trimethylsilyl 2-(trimethylsilylamino) propanoate.
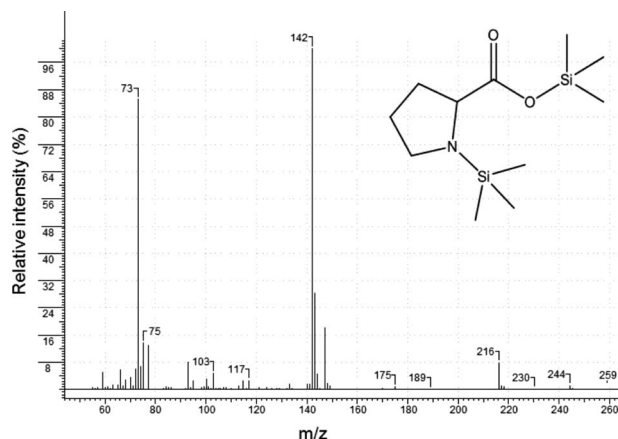

Figure S3. Mass spectrum of proline derivatised to (S)-trimethylsilyl 1-(trimethylsilyl) pyrrolidine–2-carboxylate.
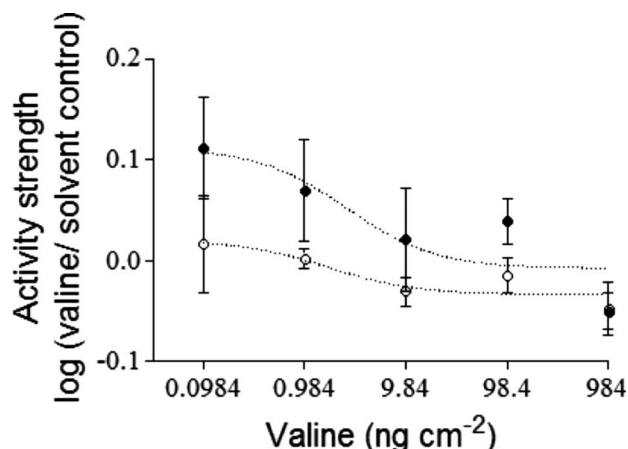

Figure S4. Pro-attachment activity of surface coated valine against *Cytophaga* sp. KT0804 (●) and *B. aquimaris* (○). Mean ± SE, n = 4, lines represent best fitting logistic functions.
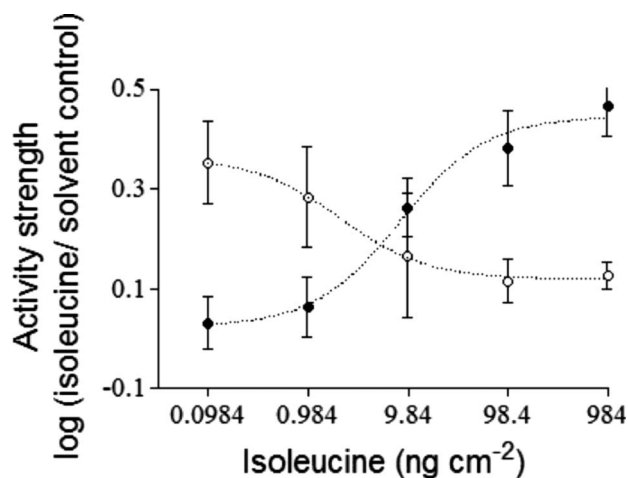

Figure S5. Pro-attachment activity of surface coated isoleucine against *Cytophaga* sp. KT0804 (●) and *B. aquimaris* (○). Mean ± SE, n = 4, lines represent best fitting logistic functions.