

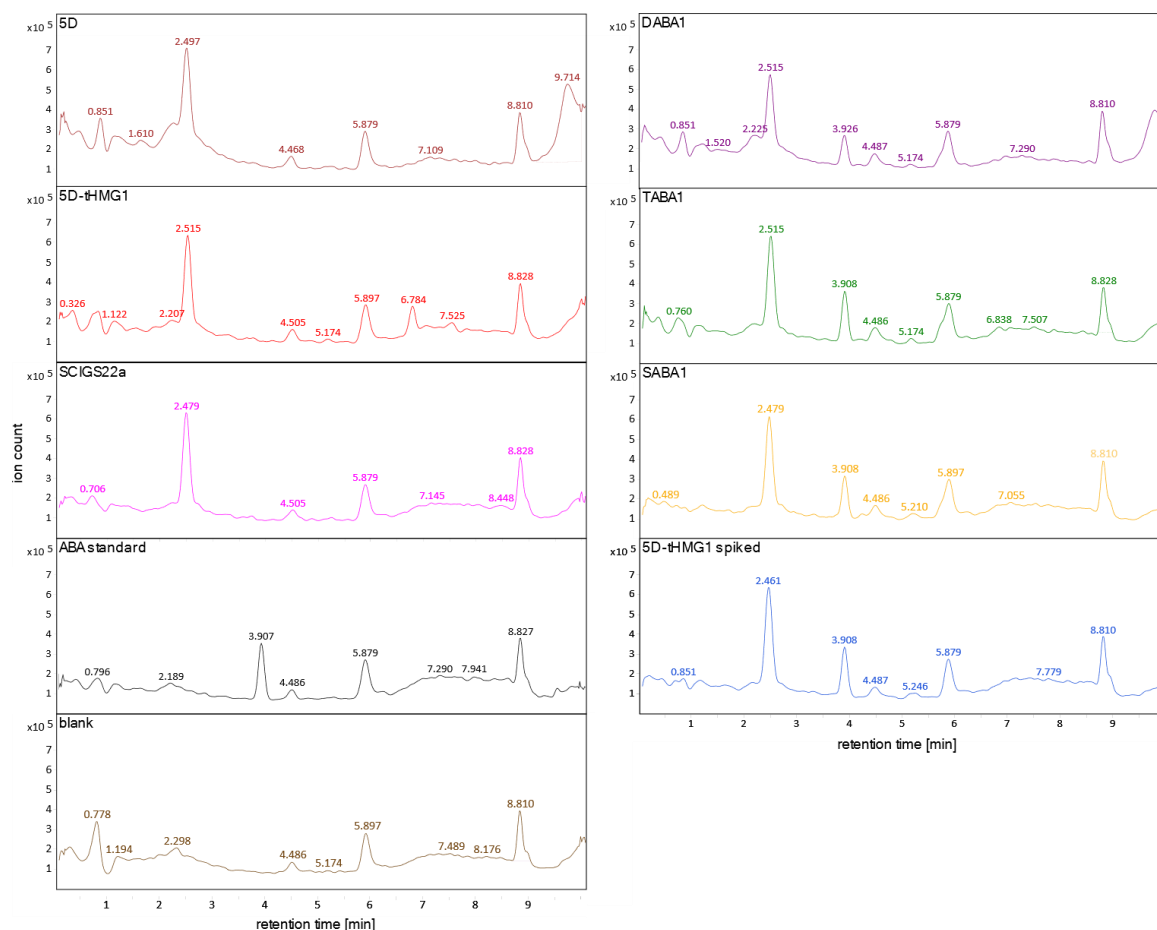


Figure S1: Chromatograms (smoothed) from HPLC-MS analysis. Shown are extracted supernatants after 48 h of cultivation –of the strains: 5D, 5D-tHMG1, SCIGS22a, DABA1, TABA1, SABA1, 5D-tHMG1 spiked with ABA standard, as well as (S)-(+)-ABA standard dissolved in MeOH and a blank run with MeOH. One replicate is displayed per strain. Retention time is displayed on top of the peaks.

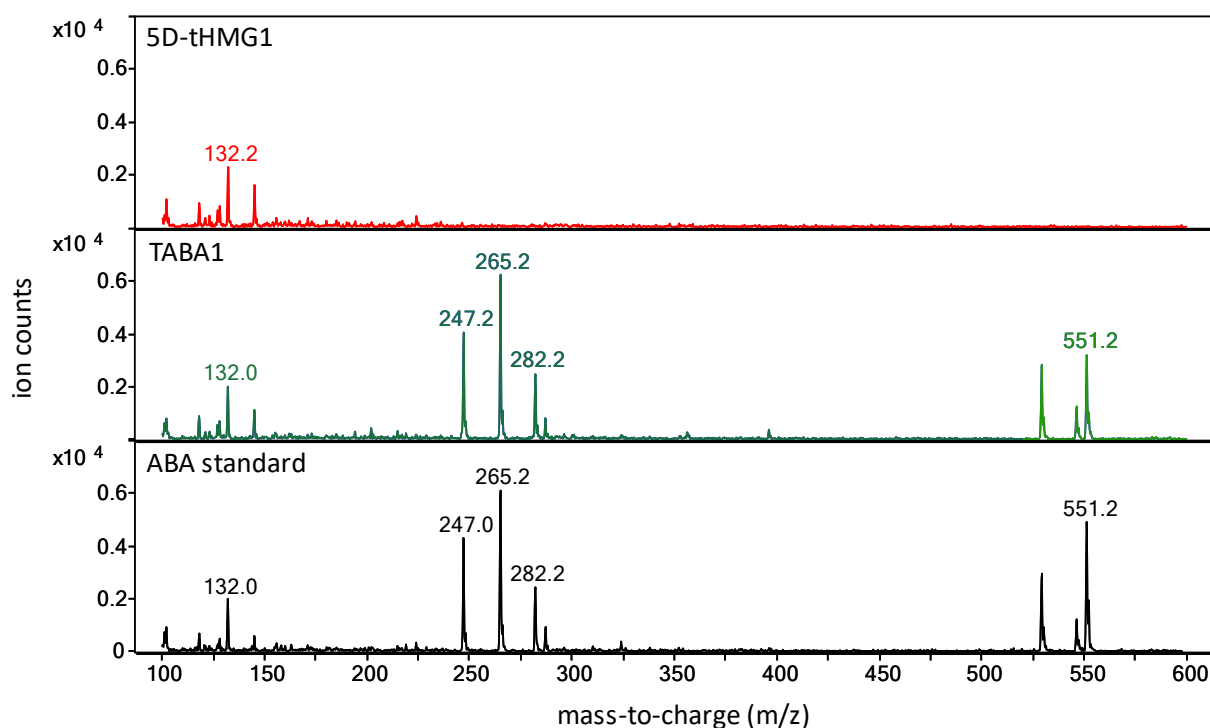


Figure S2: MS spectra of peaks at retention time 3.908 min. Spectra are derived from extracted supernatants after 48 h of cultivation of the strains 5D-tHMG1 (peak manually defined between 3.9 min and 4.0 min) and TABA1 as well as the (S)-(+)-ABA standard dissolved in MeOH. For DABA1 and ABA1 the same m/z peaks were observed as for TABA1 (data not shown). One replicate is displayed per strain. The m/z ratios are displayed above the peaks.

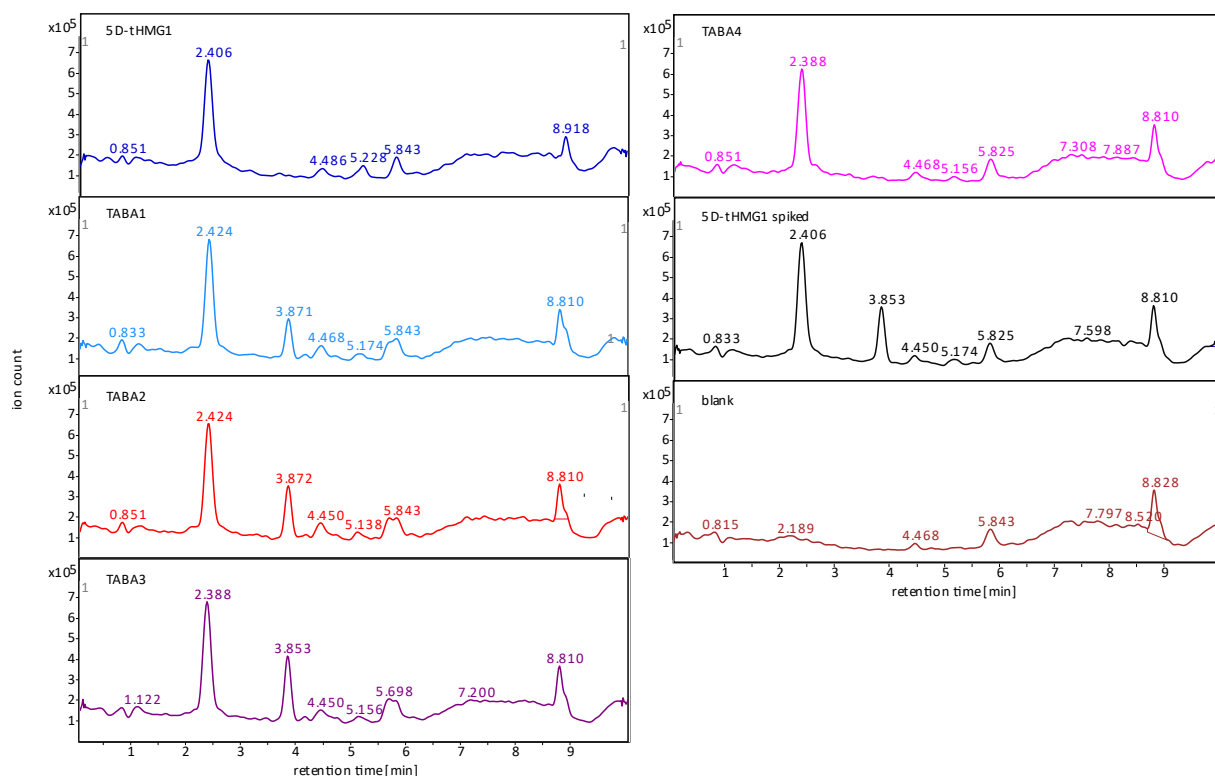


Figure S3: Chromatograms (smoothed) from HPLC-MS analysis. Shown are results from extracted supernatants after 48 h of cultivation of the strains: 5D-tHMG1, TABA1, TABA2, TABA3, TABA4 as well as 5D-tHMG1 spiked with ABA standard and a blank run with MeOH. One replicate is displayed per strain. Retention time is displayed on top of the peaks. ABA observed at 3.853 minutes.

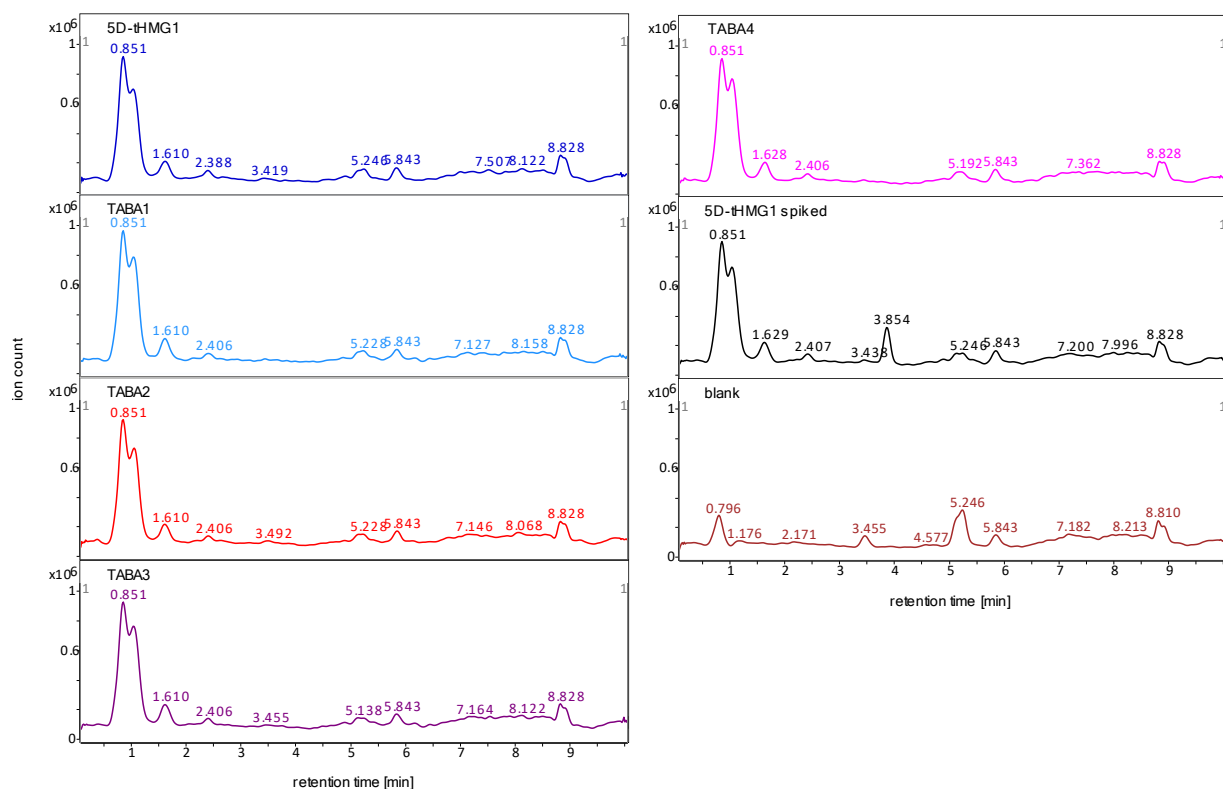


Figure S4: Chromatograms (smoothed) from HPLC-MS analysis. Shown are results from extracted pellets after 48 h of cultivation of the strains: 5D-tHMG1, TABA1, TABA2, TABA3, TABA4 as well as 5D-tHMG1 spiked with ABA standard and a blank run with MeOH. One replicate is displayed per strain. Retention time is displayed on top of the peaks.

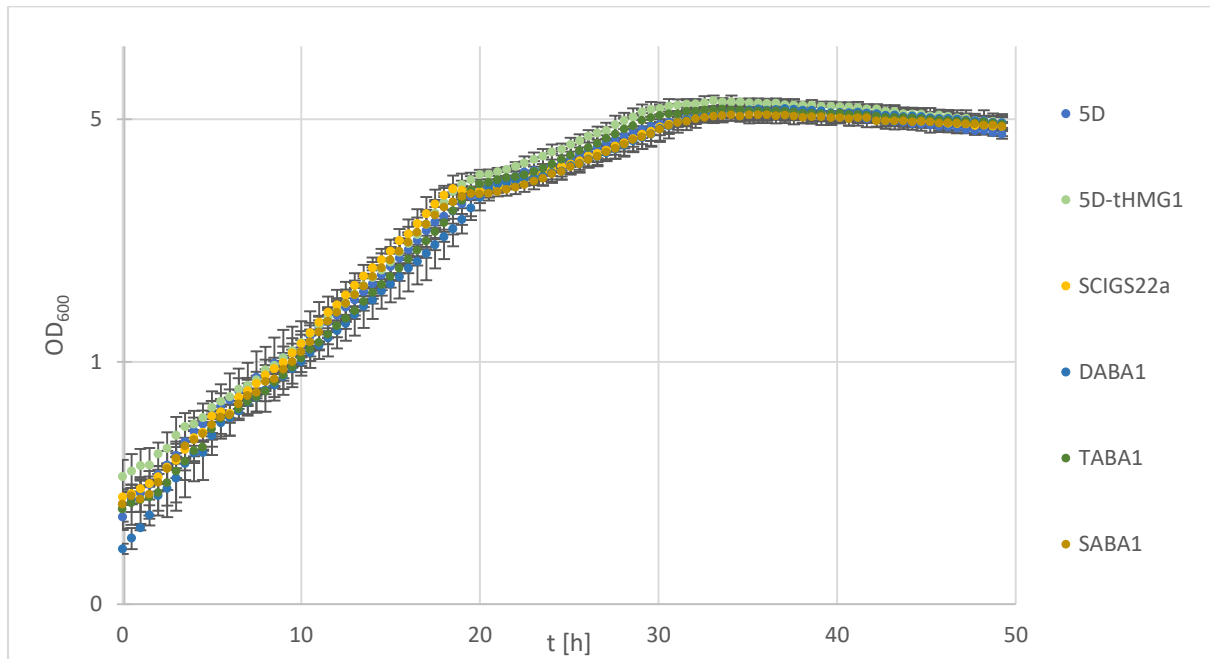


Figure S5: Growth profiles of different background and engineered strains containing *bcaba12345*, *bccpr1*, and *bcceP450*. A Growth Profiler 960 (Enzyscreen) was used to monitor the OD₆₀₀ for 48 h, with measurements every 30 min. Cultures were inoculated at OD₆₀₀ 0.1 in minimal medium supplemented with uracil and shaken at 250 rpm at 30 °C. Average and standard deviation of three independent biological replicates are shown. OD₆₀₀ is displayed on a logarithmic scale.

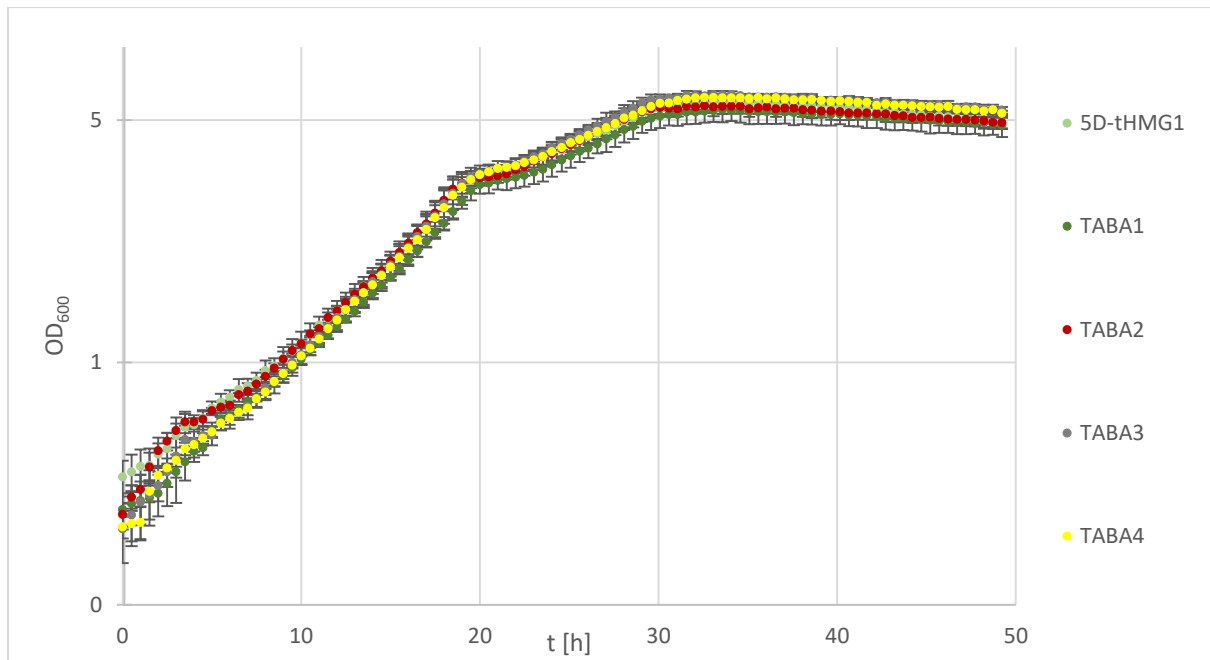


Figure S6: Growth profiles of strains based on the 5D-tHMG1 background strain. A Growth Profiler 960 (Enzygscreen) was used to monitor the OD_{600} for 48 h, with measurements taken every 30 min. Cultures were inoculated at OD_{600} 0.1 in minimal medium supplemented with uracil and shaken at 250 rpm at 30 °C. Average and standard deviation of three independent biological replicates are shown. OD_{600} is displayed on a logarithmic scale.