

Choline-Based Ionic Liquids as Media for the Growth of *Saccharomyces cerevisiae*

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Supplementary Information (S1)

i) Choline Saccharinate

¹H NMR (500 MHz, [D₆] DMSO): δ : 7.59 (m, 4 H), 5.40 (s, 1 H), 3.55 (m, 2 H), 3.45 (q, 2H), 3.10 (s, 9H). ¹³C NMR (100 MHz, [D₆] DMSO): δ : 168.09 (C=O), 145.28, 133.89 (C), 131.24, 131.28, 122.67, 119.02 (CH), 67.15 (N-CH₂), 54.94 (CH₂), 53.36, 53.03, 53.63 (CH₃ x 3).

ii) Choline Dihydrogen Phosphate

¹H NMR (500 MHz, [D₂O]): δ : 5.41 (s, 1H), 4.27 (s, 2H), 3.91 (q, 2H), 3.38 (m, 2H), 3.06 (s, 9H). ¹³C NMR (500 MHz, [D₆] Acetone): δ : 67.34 (N-CH₂), 55.53 (CH₂), 53.83, 53.77, 53.71 (CH₃ x 3).

iii) Choline Tryptophanate

¹H NMR (500 MHz, [D₆]DMSO): δ : 11.22 (s, 1H), 7.55 (d, 1H), 7.35 (d, 1H), 7.13 (s, 1H), 7.03 (t, 1H), 6.90 (t, 1H), 5.43 (s, 1H), 3.85 (m, 2H), 3.38 (t, 3H), 3.18 (m, 2H), 3.10 (s, 9H), 2.60 (q, 2H). ¹³C NMR (500 MHz [D₂O]): δ : 180.55 (C=O), 136.81, 127.73, 110.95 (C), 123.27, 121.04, 119.40, 118.37, 111.11, 56.66 (CH), 67.53 (N-CH₂), 55.55, 31.31 (CH₂), 53.21, 53.17, 53.14 (CH₃ x 3).

Supplementary Information (S2)

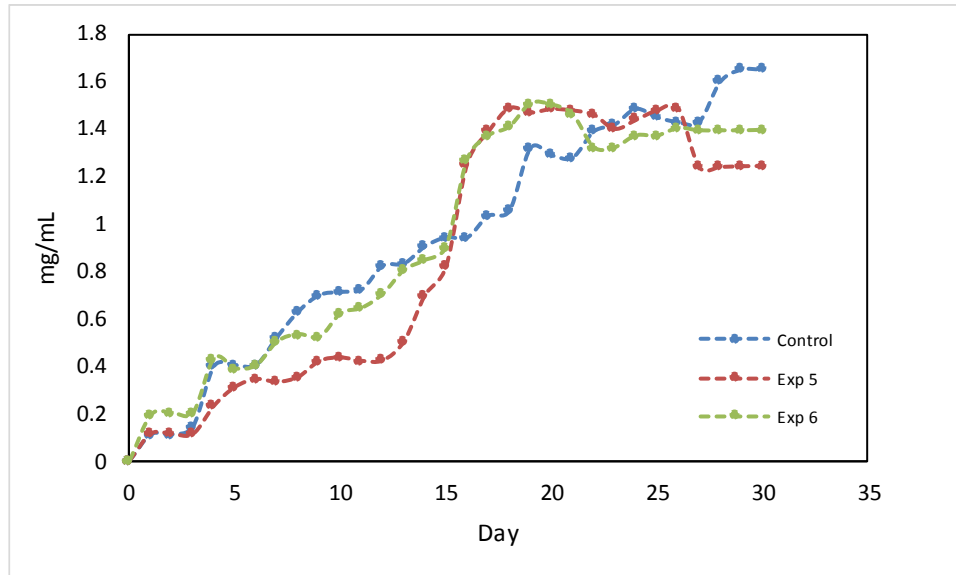


Figure S1: Protein profile of Exp 5 and Exp 6 in comparison to control experiment