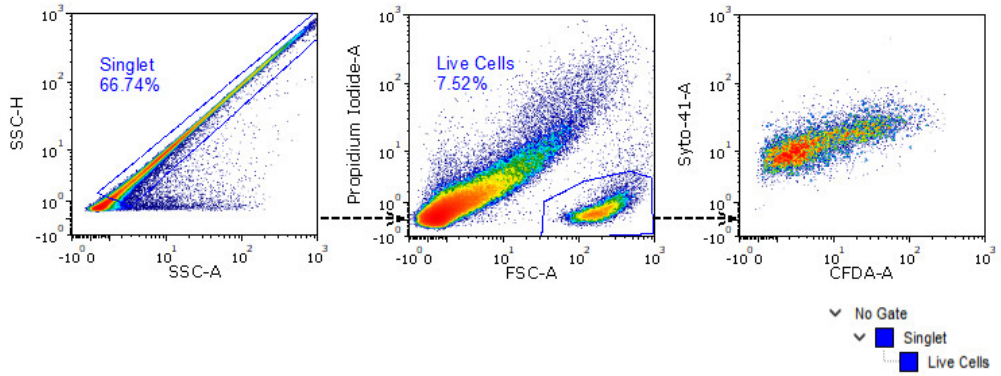


Figure S1. Exemplative FCM gating strategy of yeast population during fermentation.

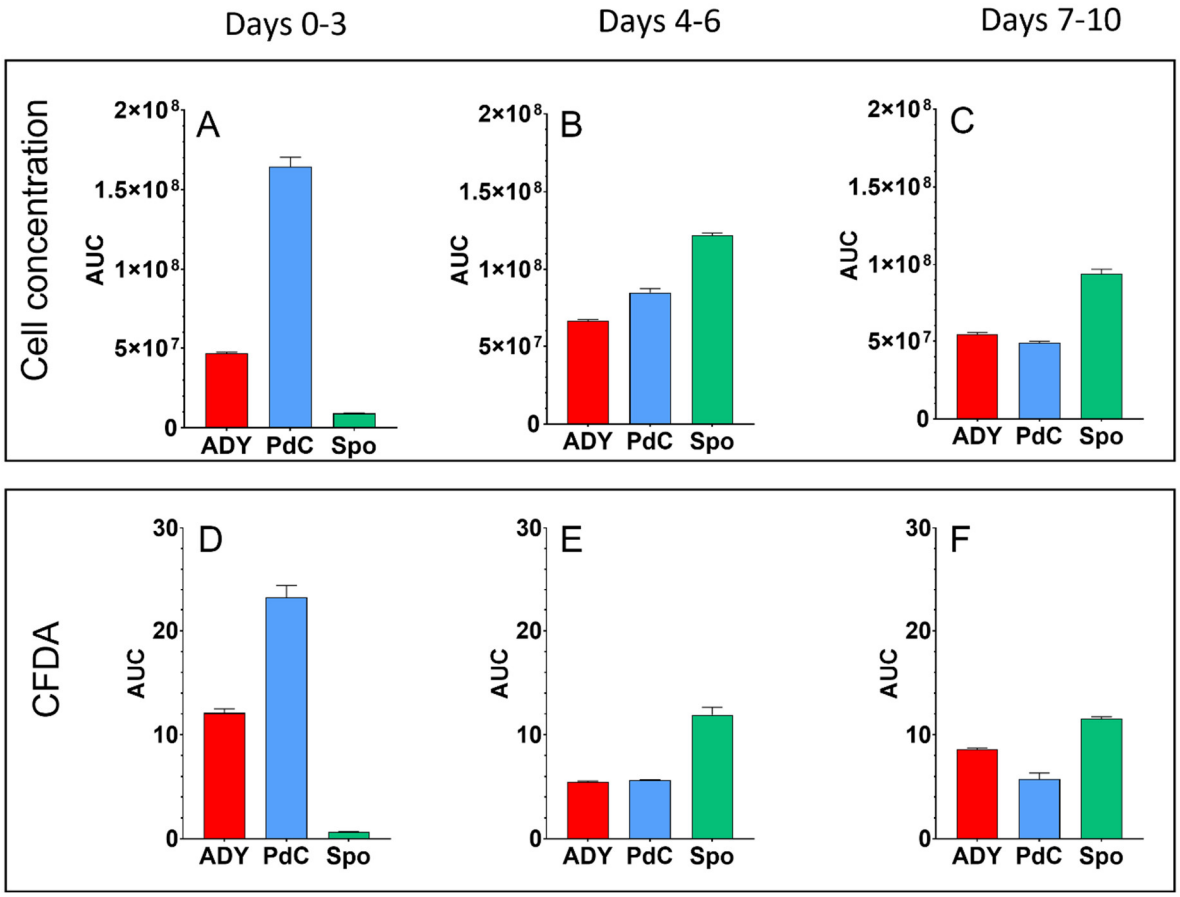


Figure S2. Area under the curve (AUC) analysis for cell concentration and CFDA fluorescence values. A, B, C: AUC for cell concentration; D, E, F: AUC for CFDA. Fermentation was divided into three intervals after inoculation: day 0-3, days 4–6, and days 7–10. **A**: AUC_{ADY} = 4.7 × 10^7; confidence interval (CI) = [4.5 × 10^7, 4.8 × 10^7]; AUC_{PdC} = 1.6 × 10^8; CI = [1.56 × 10^8, 1.73 × 10^8]; AUC_{Spo}= 9.1 × 10^6; CI = [8.6 × 10^6, 9.6 × 10^6]. **B**: AUC_{ADY} = 6.6 × 10^7; CI = [6.5 × 10^7, 6.8 × 10^7]; AUC_{PdC} = 8.4 × 10^7; CI= [7.9 × 10^7, 8.9 × 10^7] ; AUC_{Spo} = 1.2× 10^8; CI = [11.8× 10^8, 12.5 × 10^8]. **C**: AUC_{ADY} = 5.4 x 10^7; CI = [5.2 x 10^7, 5.6 x 10^7]; AUC_{PdC} = 4.9 x 10^7; CI = [4.6 x 10^7, 5.1 x 10^7]; AUC_{Spo} = 9.4 x 10^7; CI = [8.8 x 10^7,9.9 x 10^7]. **D:** AUC_{ADY} = 12.1; CI = [11.3, 12.9]; AUC_{PdC} = 23.2; CI = [20.7, 25.7]; AUC_{Spo}= 0.66; CI = [0.59, 0.73]; **E:** AUC_{ADY} = 5.5; CI = [5.3, 5.6]; AUC_{PdC} = 5.6; CI = [5.5, 5.7]; AUC_{Spo}= 11.9; CI = [10.5, 13.3]. **F:** AUC_{ADY} = 8.6; CI = [8.3, 8.8]; AUC_{PdC} = 5.7; CI = [4.6, 6.9]; AUC_{Spo}= 11.5; CI = [11.2, 11.9].