

**Figure S2** The addition of pXYLA or pXYLA,XKS1 increases the xylose utilization of *S. cerevisiae*. Growth analysis of wild-type (WT, Y7092), to transformed strains, WT + pXYLA (YKB2179) and WT + pXYLA,XKS1 (YKB2178) in liquid media containing 2% glucose (**A**) or 10% xylose (**B**). Growth analysis was performed in triplicate on Multiskan Ascent plate reader (Thermo Electron Corporation), with OD<sub>600</sub> taken every 30 min over a 20-hour period at 30°. The error bars represent 1 standard deviation and are smaller than the data marker. (**C**) Sugar consumption table of wild-type (WT, Y7092), or wild-type transformed with pXYLA (YKB2179), or pXYLA,XKS1 (YKB2178) starting in either 13% glucose or xylose media. Fermentations were pitched with 1.5x10<sup>7</sup> cells/ml and carried out at 30°. The calculation for g/L consumed of sugars corresponds to the concentrations of sugars observed at the end of the batches compared to the starting amount.

**2 SI** J. Usher *et al.*