

Cofermentation of glucose, xylose, and cellobiose

Table S2. Comparison of fermentation kinetics for engineered *Saccharomyces cerevisiae* and native *Spathaspora passalidarum*

Species and strain	Strain background or genetic modification	Cultivation conditions	Medium	Carbon source	EtOH (g/l)	EtOH yield (g/g)	Overall EtOH productivity (g/l·h)	Reference
<i>S. cerevisiae</i> BP10001	<i>XYL1</i> with K274R-N276D double mutant	Bioreactor, 200 rpm, pH 5, N ₂ -sparged	Defined minimal medium based on Jeppsson (2006)	5% Xylose	12.4 ^a	0.37	0.003	Krahulec et al. (2010); Petschacher & Nidetzky (2008)
<i>S. cerevisiae</i> OC2-ABGL4Xyl2	Linear integrated 4 copies of BGL genes and 2 copies of xylose-assimilating gene	Shake flask	YPCX medium containing 1% yeast extract and 2% peptone	9% Cellobiose+ 6% Xylose	57.4	0.39	1.196	Saitoh et al. (2010)
<i>S. cerevisiae</i> DA24-16BT3	Mutated <i>XYL1</i> preferring NADH (R276H), integrated <i>cdt1</i> with multi-copy plasmids containing <i>ghl-1</i>	Bioreactor, oxygen limited, 200 rpm	YP medium containing 1% yeast extract and 2% peptone	4% Xylose	12 ^a	0.31	0.263	Ha et al. (2011)
				4% Cellobiose	12 ^a	0.29	0.262	
				10% Cellobiose + 6% xylose	60 ^a	0.38	0.99	
<i>S. arborariae</i> UFMG-HM19.1A	WT	Shaken flasks, 10 g/l pre-grown cells	YP medium containing 1% yeast extract and 2% peptone	2% Glucose	10.5	0.35	5.250	Cadete RM et al. (2009)
				2% Xylose	10	0.37	2.500	
<i>S. passalidarum</i> ATCC MYA-4345	WT	Sealed vials	YP medium containing 1% yeast extract and 2% peptone	3% Glucose	13.5	0.43	0.188	Hou (2011)
				3% Xylose	13.75	0.44	0.191	
<i>S. passalidarum</i> NN245	WT	Bioreactor, low aeration	Defined minimal medium	10% Glucose	31.41	0.31	0.628	This study
				10% Xylose	37.37	0.41	0.890	
				6% Cellobiose + 4% Xylose	37	0.35	0.528	