

1 **Table S1: Comparison of xylose-fermenting strains of *Saccharomyces* harboring genes**  
 2 **encoding *PsXR* and *PsXDH* from *P. stipitis* CBS 5773 and CBS 6054.**

Strain	XR XDH from CBS	<i>Saccharomyces</i> background	Initial xylose conc. (g/L)	$Y_{\text{ethanol}}$ (g/g)	$Y_{\text{xylitol}}$ (g/g)	Ref.
1400(pLNH32)	5773	1400 <sup>d</sup>	80	0.34	0.06	(1)
1400(pLNH32)	5773	1400 <sup>d</sup>	50	0.3	0.08	(2)
MA-N4	5773	INVSc1	45	0.34	0.10	(3)
MA-R4	5773	IR-2	45	0.35	0.04	(4)
MA-D4	5773	D452-2	45	0.35	0.08	(4)
MA-T4	5773	Type-II	45	0.34	0.09	(4)
H158-pXks <sup>a</sup>	6054	GPY55-15 $\alpha$	80	0.22	0	(5)
H158-pXks <sup>b</sup>	6054	GPY55-15 $\alpha$	80	0.27	0.03	(5)
CEN.PK-pXks <sup>a</sup>	6054	CenPK2-1C	80	0.16	0.25	(5)
CEN.PK-pXks <sup>b</sup>	6054	CenPK2-1C	80	0.21	0.36	(5)
TMB3001	6054	CenPK 113-7A	50	0.31	0.29	(6)
TMB3001	6054	CenPK 113-7A	10	0.44	0.21	(7)
TMB3260 <sup>c</sup>	6054	CenPK 113-7A	50	0.30	0.13	(8)
TMB3250	6054	ENY.WA-1A	50	0.30	0.30	(6)
TMB3399	6054	USM21	20	0.05	0.59	(9)

3 All strains additionally provide overexpression of the endogenous gene for xylulose kinase.

4 The Table is an update of the summary given by (10).

5 <sup>a</sup> in defined media; <sup>b</sup> in complex media; <sup>c</sup> overproduces XR; <sup>d</sup> Fusion between *Saccharomyces*

6 *diastaticus* and *Saccharomyces uvarum*

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