Supplementary information for the article

Harnessing Environmental Yeasts - *Pichia kudriavzevii* strain ZMUM_K002: The Quest for Isolates with Properties for Efficient Biotechnological Applications

Tadeja Vajdič [1]. Marjanca Starčič Erjavec [1.2.*]

[1] Department of Biology. Faculty of Natural Sciences and Mathematics. University of Maribor. 2000 Maribor. Slovenia

[2] Department of Microbiology. Biotechnical Faculty. University of Ljubljana. 1000 Ljubljana. Slovenia;

[*] Correspondence: marjanca.starcic.erjavec@bf.uni-lj.si; marjanca.starcic@um.si

Table S1: Detailed composition of the salt stock solution and the trace element stock solution used for preparation of chemically defined media.

Composition of stock solutions for preparation of chemically defined media (CDM)		
Composition of the salt stock solution (per liter)		
5.0	g	K_2HPO_4
5.0	g	$MgSO_4 \times 7\ H_2O$
2.5	g	NaCl
0.05	g	$Fe_2SO_4 \times 7\ H_2O$
0.05	g	$MnSO_4 \times 4\ H_2O$
Composition of the trace element stock solution (per liter)		
1.5	g	nitrilotriacetic acid
3.0	g	$MgSO_4 \times 7\ H_2O$
0.5	g	$MnSO_4 \times 2\ H_2O$
1.0	g	NaCl
0.10	g	$FeSO_4 \times 7\ H_2O$
0.18	g	$CoSO_4 \times 7\ H_2O$
0.10	g	$CaCl_2 \times 2\ H_2O$
0.18	g	$ZnSO_4 \times 7\ H_2O$
0.01	g	$CuSO_4 \times 5\ H_2O$
0.02	g	$KAl(SO_4)_2 \times 12\ H_2O$
0.01	g	H_3BO_3
0.01	g	$Na_2MoO_4 \times 2\ H_2O$
0.025	g	$NiCl_2 \times 6\ H_2O$
0.3	g	$Na_2SeO_4 \times 5\ H_2O$

For each solution the specified components were dissolved in ultrapure water (Milli-Q water. resistivity ≥ 18.2 MΩ·cm at 25°C).

Table S2: Raw OD_{600} measurements for *Pichia kudriavzevii* ZMUM_K002, grown in chemically defined media (CDM) supplemented with different carbon sources (glucose, glc; fructose, fru; and sucrose, suc) at concentration 10 g/L. The experiment was performed in triplicates (three different biological repeats, #1, #2, and #3). Measurements were performed at time points as indicated in the brackets in the table.

CDM + 10 g/L glucose (glc)												
glc #1	0.01 (0h)	0.283 (4h)	0.727 (6h)	2.865 (8h)	6.51 (10h)	14.16 (20h)	15.3 (24h)	18.62 (32.5h)	15.88 (51h)	14.2 (73h)	13.25 (93h)	14.15 (165h)
glc #2	0.03 (0h)	0.25 (4h)	0.582 (6h)	2.64 (8h)	7.28 (10h)	13.14 (20h)	14.64 (24h)	17.16 (32.5h)	17.24 (51h)	14.35 (73h)	12.1 (93h)	13.1 (165h)
glc #3	0 (0h)	0.213 (4h)	0.51 (6h)	2.54 (8h)	6.21 (10h)	15.55 (20h)	14.55 (24h)	19.9 (32.5h)	17.32 (51h)	15.1 (73h)	13.7 (93h)	10.9 (165h)
CDM + 10 g/L fructose (fru)												
fru #1	0.02 (0h)	0.29 (4h)	0.662 (6h)	2.848 (8h)	6.145 (10h)	14.48 (20h)	15.54 (24h)	16.2 (49h)	14.6 (73h)	13.45 (93h)	16.35 (165h)	
fru #2	0 (0h)	0.228 (4h)	0.673 (6h)	2.587 (8h)	11.568 (10h)	12.08 (20h)	15.44 (24h)	25.35 (49h)	14.1 (73h)	12.1 (93h)	14.1 (165h)	
fru #3	0 (0h)	0.213 (4h)	0.5 (6h)	3.932 (8h)	6.148 (10h)	13.11 (20h)	15.59 (24h)	20.42 (49h)	16.5 (73h)	15.2 (93h)	15.91 (165h)	
CDM + 10 g/L sucrose (suc)												
suc #1	0.051 (2h)	0.283 (20h)	1.06 (24h)	1 (49h)	7.96 (73h)	8.42 (93h)	6.51 (165h)					
suc #2	0.015 (2h)	0.32 (20h)	1.05 (24h)	1.71 (49h)	8.2 (73h)	8.033 (93h)	5.9 (165h)					
suc #3	0.051 (2h)	0.41 (20h)	1.21 (24h)	0.95 (49h)	8.1 (73h)	8.5 (93h)	6.34 (165h)					

Table S3: Raw OD_{600} measurements for *Saccharomyces cerevisiae* ZMUM_K003, grown in chemically defined media (CDM) supplemented with different carbon sources (glucose, glc; fructose, fru; and sucrose, suc) at concentration 10 g/L. The experiment was performed in triplicates (three different biological repeats, #1, #2, and #3). Measurements were performed at time points as indicated in the brackets in the table.

CDM + 10 g/L glucose (glc)							
glc #1	0.01 (0h)	0.453 (20h)	0.54 (24h)	1.018 (49h)	13.65 (73h)	11.352 (93h)	13.01 (165h)
glc #2	0 (0h)	0.491 (20h)	0.543 (24h)	0.85 (49h)	9.94 (73h)	12.11 (93h)	11.67 (165h)
glc #3	0.03 (0h)	0.39 (20h)	0.5 (24h)	1.2 (49h)	11.2 (73h)	11.9 (93h)	11.03 (165h)
CDM + 10 g/L fructose (fru)							
fru #1	0.01 (0h)	0.481 (20h)	0.403 (24h)	1.484 (49h)	3.43 (73h)	7.91 (93h)	7.76 (165h)
fru #2	0.03 (0h)	0.532 (20h)	0.603 (24h)	1.384 (49h)	11.17 (73h)	10.59 (93h)	10.42 (165h)
fru #3	0.01 (0h)	0.411 (20h)	0.841 (24h)	1.655 (49h)	6.8 (73h)	9.95 (93h)	7.89 (165h)
CDM + 10 g/L sucrose (suc)							
suc #1	0.051 (2h)	0.283 (20h)	1.06 (24h)	1 (49h)	7.96 (73h)	8.42 (93h)	7.125 (165h)
suc #2	0.085 (2h)	0.543 (20h)	0.629 (24h)	1.574 (49h)	10.3 (73h)	4.69 (93h)	4.15 (165h)
suc #3	0.074 (2h)	0.714 (20h)	0.748 (24h)	1.745 (49h)	7.99 (73h)	4.68 (93h)	4.55 (165h)