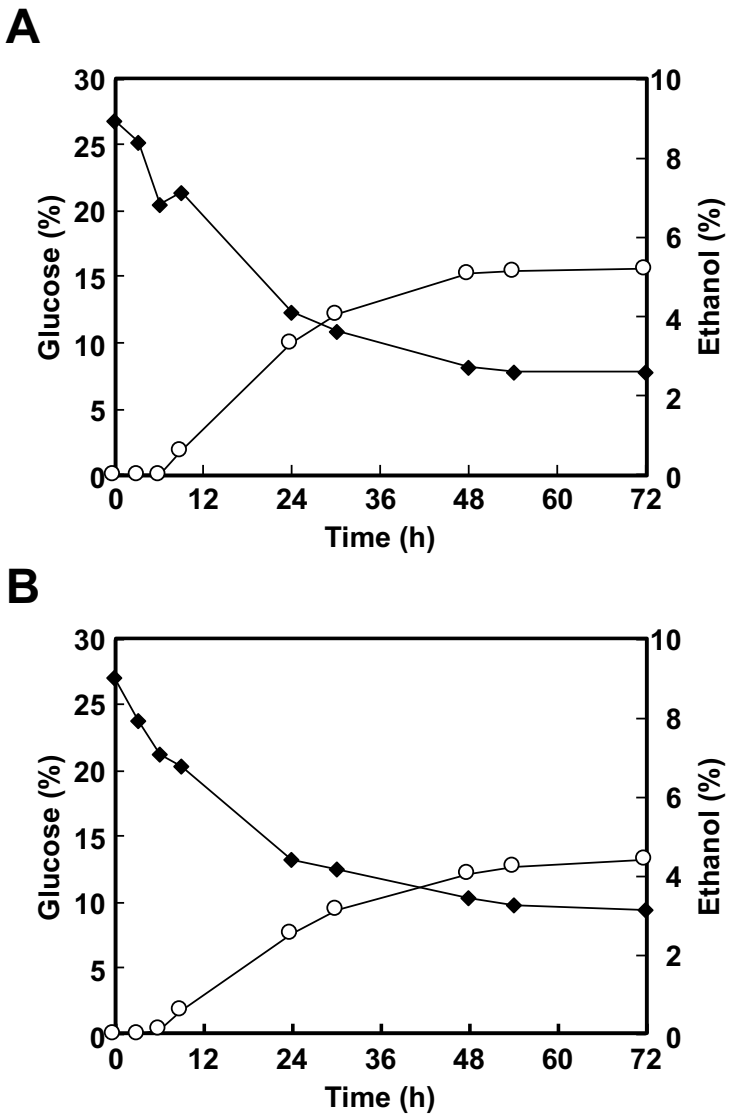

Figure S1. Time-dependent changes in ethanol (white circle) and glucose (black square) produced by *P. kudriavzevii* NBRC1279 (**A**) and NBRC1664 (**B**). Both strains were first cultivated aerobically in YPD medium containing glucose (27 g/L) for 36 h at 30 °C. The cells were collected by centrifugation at 6,000 × *g* for 5 min at 4 °C, and then washed with sterile water twice. The washed strains were inoculated into the fresh medium and cultured under anaerobic conditions. Anaerobic batch fermentation experiments were performed at 30 °C in closed bottles (50 mL) containing 20 mL of fermentation medium (YPD) to which magnetic stir bars (2 cm in diameter) were added and the cultures were grown with mild agitation.

Table S1. The other sugar concentration during bioethanol production with *P. kudriavzevii* NBRC1279 using Japanese cedar particles.

Time (h)	Galactose (g/L)					Mannose (g/L)					Arabinose (g/L)					Xylose (g/L)				
	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃
3	0.17	0.23	0.21	0.25	0.23	0.11	0.13	0.11	0.12	0.13	0.04	0.04	0.04	0.05	0.05	0.32	0.34	0.34	0.36	0.36
6	0.18	0.20	0.19	0.33	0.25	0.07	0.13	0.14	0.16	0.17	0.08	0.05	0.05	0.06	0.05	0.37	0.36	0.40	0.40	0.41
12	0.24	0.24	0.26	0.30	0.25	0.14	0.16	0.15	0.32	0.21	0.05	0.05	0.06	0.14	0.06	0.46	0.51	0.45	0.49	0.46
24	0.25	0.29	0.31	0.33	0.22	0.18	0.17	0.28	0.37	0.34	0.07	0.07	N.D.*	N.D.	0.02	0.47	0.51	0.54	0.51	0.48
48	0.28	0.38	0.34	0.28	0.24	0.14	0.17	0.30	0.39	0.47	0.08	0.07	N.D.	N.D.	N.D.	0.50	0.54	0.57	0.53	0.52
72	0.29	0.40	0.36	0.37	0.22	0.16	0.19	0.33	0.41	0.52	0.08	0.06	N.D.	0.03	N.D.	0.52	0.50	0.58	0.55	0.54
96	0.30	0.42	0.38	0.40	0.25	0.20	0.19	0.33	0.49	0.55	0.07	0.07	N.D.	N.D.	N.D.	0.52	0.57	0.59	0.57	0.55
120	0.26	0.38	0.40	0.42	0.31	0.18	N.D.	0.37	0.54	0.62	0.07	0.20	N.D.	N.D.	N.D.	0.47	0.58	0.57	0.59	0.59
144	0.30	0.44	0.42	0.45	0.31	0.22	N.D.	0.40	0.58	0.66	0.08	0.21	N.D.	N.D.	N.D.	0.52	0.62	0.57	0.60	0.60

*N.D. means not detected.

Table S2. The other sugar concentration during bioethanol production with *P. kudriavzevii* NBRC1664 using Japanese cedar particles.

Time (h)	Galactose (g/L)					Mannose (g/L)					Arabinose (g/L)					Xylose (g/L)				
	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃
3	0.16	0.21	0.20	0.23	0.26	0.11	0.11	0.14	0.12	0.16	0.04	0.05	0.06	0.05	0.03	0.32	0.32	0.34	0.35	0.35
6	0.18	0.21	0.21	0.34	0.25	0.10	0.13	0.19	0.16	0.17	0.06	0.07	0.05	0.06	0.05	0.36	0.39	0.38	0.40	0.41
12	0.24	0.21	0.31	0.32	0.25	0.14	0.16	0.24	0.25	0.25	0.06	0.06	0.01	0.02	0.04	0.47	0.48	0.47	0.46	0.45
24	0.28	0.31	0.31	0.39	0.27	0.17	0.18	0.25	0.31	0.41	0.07	0.06	0.01	0.02	N.D.*	0.49	0.49	0.56	0.55	0.49
48	0.26	0.36	0.33	0.33	0.23	0.16	0.19	0.28	0.36	0.46	0.06	0.06	N.D.	N.D.	N.D.	0.52	0.51	0.56	0.56	0.52
72	0.31	0.35	0.34	0.33	0.23	0.15	0.18	0.30	0.39	0.52	0.08	0.07	N.D.	N.D.	N.D.	0.52	0.50	0.58	0.56	0.54
96	0.34	0.41	0.39	0.33	0.28	0.19	0.19	0.32	0.41	0.58	0.06	0.07	N.D.	N.D.	N.D.	0.52	0.55	0.56	0.56	0.57
120	0.27	0.42	0.39	0.43	0.33	0.16	N.D.	0.33	0.49	0.66	0.08	0.20	N.D.	N.D.	N.D.	0.49	0.62	0.55	0.57	0.60
144	0.31	0.44	0.41	0.46	0.29	0.26	0.10	0.46	0.58	0.66	0.08	0.17	N.D.	N.D.	N.D.	0.48	0.65	0.61	0.64	0.60

*N.D. means not detected.

Table S3. The other sugar concentration during bioethanol production with *P. kudriavzevii* NBRC1279 using Japanese eucalyptus particles.

Time (h)	Galactose (g/L)					Mannose (g/L)					Arabinose (g/L)					Xylose (g/L)				
	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃
3	0.19	0.22	0.23	0.20	0.23	0.03	0.02	0.03	0.06	0.03	0.16	0.03	0.03	0.18	0.03	0.29	0.43	0.50	0.42	0.51
6	0.25	0.23	0.25	0.23	0.23	0.03	0.02	0.02	0.05	0.03	0.19	0.03	0.03	0.03	0.03	0.40	0.55	0.60	0.60	0.62
12	0.35	0.28	0.31	0.26	0.26	0.03	0.01	0.06	0.06	0.03	0.17	0.03	0.03	0.03	0.03	0.55	0.73	0.74	0.75	0.76
24	0.43	0.43	0.33	0.34	0.26	0.03	N.D.*	0.01	0.07	0.04	0.16	0.04	0.04	0.04	0.03	0.67	0.86	0.81	0.86	0.82
48	0.49	0.46	0.43	0.37	0.30	0.02	N.D.	N.D.	0.06	N.D.	0.15	0.03	0.04	0.03	0.05	0.75	0.91	0.93	0.93	0.93
72	0.53	0.54	0.49	0.41	0.28	N.D.	N.D.	0.07	0.09	0.03	0.16	0.04	0.04	0.04	0.03	0.81	0.95	0.95	1.00	0.96
96	0.51	0.54	0.49	0.34	0.31	0.02	N.D.	N.D.	0.07	0.04	0.15	0.04	0.05	0.03	0.04	0.81	0.96	1.02	1.00	1.02
120	0.54	0.59	0.44	0.41	0.32	0.02	0.07	N.D.	0.02	0.05	0.15	0.03	0.05	0.03	0.03	0.90	0.96	1.01	1.00	0.98
144	0.60	0.58	0.48	0.41	0.34	N.D.	0.04	N.D.	0.05	0.10	0.16	0.03	0.05	0.03	0.05	0.95	0.97	1.03	1.02	1.06

*N.D. means not detected.

Table S4. The other sugar concentration during bioethanol production with *P. kudriavzevii* NBRC1664 using Japanese eucalyptus particles.

Time (h)	Galactose (g/L)					Mannose (g/L)					Arabinose (g/L)					Xylose (g/L)				
	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃	30℃	37℃	40℃	42℃	45℃
3	0.19	0.23	0.22	0.21	0.22	0.03	0.03	0.03	0.08	0.03	0.15	0.03	0.03	0.17	0.03	0.31	0.45	0.50	0.47	0.51
6	0.21	0.22	0.25	0.23	0.23	0.03	0.02	0.02	0.06	0.03	0.19	0.03	0.03	0.03	0.03	0.41	0.54	0.60	0.60	0.62
12	0.35	0.26	0.33	0.27	0.25	0.03	0.01	N.D.*	0.06	0.03	0.17	0.03	0.04	0.03	0.03	0.55	0.72	0.75	0.74	0.76
24	0.42	0.45	0.33	0.35	0.25	0.03	N.D.	N.D.	0.07	0.03	0.14	0.03	0.04	0.03	0.03	0.68	0.85	0.81	0.85	0.82
48	0.49	0.50	0.47	0.43	0.29	N.D.	N.D.	N.D.	0.06	0.02	0.14	0.04	0.03	0.04	0.04	0.77	0.92	0.95	0.93	0.92
72	0.54	0.51	0.60	0.40	0.28	N.D.	N.D.	0.07	0.07	0.05	0.18	0.04	0.03	0.03	0.03	0.83	0.93	0.97	0.98	0.95
96	0.54	0.53	0.50	0.36	0.30	N.D.	N.D.	0.07	0.08	0.05	0.17	0.04	0.04	0.03	0.03	0.84	0.94	1.01	0.98	1.02
120	0.59	0.59	0.49	0.45	0.32	N.D.	0.05	0.01	0.04	0.05	0.17	0.03	0.03	0.03	0.03	0.95	0.95	0.92	1.00	0.97
144	0.57	0.53	0.64	0.42	0.33	N.D.	0.03	N.D.	0.04	0.02	0.16	0.03	0.04	0.03	0.04	0.91	0.91	1.02	0.98	1.06

*N.D. means not detected.