Supplementary Materials

Structural Characterization of Exopolysaccharide Produced by *Leuconostoc citreum* B-2 Cultured in Molasses Medium and Its Application in Set Yogurt

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Table S1. Assigned concentrations of variables at different levels in Plackett-Burman design for M-EPS production.

Variable	Parameter	High level (+1)	Central point (0)	Low level (-1)
Molasses (g/L)	X_1	275	200	125
Peptone (g/L)	X_2	12	8	4
Yeast extract powder (g/L)	X_3	8	6	4
Beef extract powder (g/L)	X_4	16	12	8
Sodium acetate (g/L)	X_5	6	4	2
K_2HPO_4 (g/L)	X_6	5	3	1
Ammonium citrate (g/L)	X_7	10	6	2
Initial pH	X_8	10	9	8

Table S2. Range of different factors studied in the central composite design.

Variable quantity	Parameter	Level				
		-1.682	-1	0	+1	+1.682
Molasses (g/L)	X_1	232.96	250	275	300	317.05
Beef extract powder (g/L)	X_4	7.98	9	10.5	12	13.02
Initial pH	X_8	7.73	8	8.4	8.8	9.07

Table S3. The equal variance test of Plackett-Burman experimental results.

Method	F-value	Molecular freedom	Denominator degrees of freedom	$P > \mid F \mid$
F-bilateral test	1218.2417	11	2	0.0016*

Table S4. The *t*-test of Plackett-Burman experimental results.

Method	Molecular freedom	Denominator degrees of freedom	$P > \mid t \mid$
Assume equal variance	11	2	0.3610
Assume unequal variance	11	2	0.0777

Table S5. Verification results of RSM optimization model.

Parameter	M-EPS（g/L）
Model prediction value	47.611
	46.62 ± 0.44
	46.50 ± 0.04
	46.83 ± 0.33
Validation value	46.60 ± 0.16
	47.45 ± 0.44
	47.17 ± 0.40

Table S6. The *t*-test of verification results of RSM optimization model.

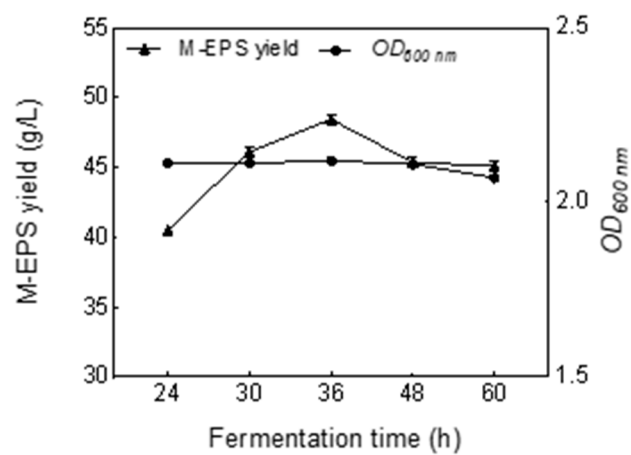| Method	Freedom	Standard deviation	$P > \mid t \mid$
t-test	5	0.3751	0.1234

Figure S1. Time course for cellular growth and M-EPS yield by *Leu. citreum* B-2 under the optimized conditions. Different condition was illustrated as triangle (▲: M-EPS production), circle (●: OD_{600nm}).