

Supplementary Materials

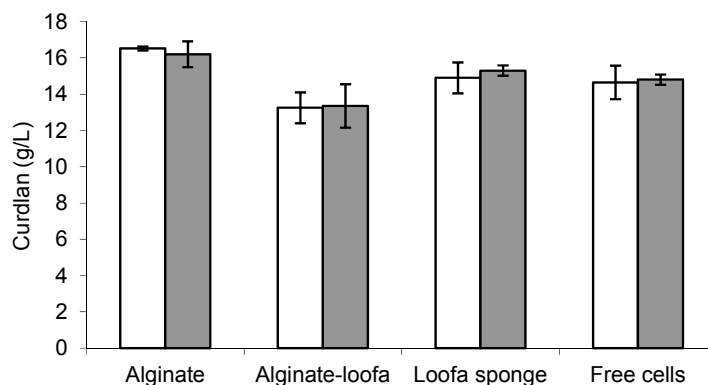


Figure S1. Curdian production by *Agrobacterium* sp. IFO 13140 immobilized in alginate, sponge-alginate loofa sponge and free cells at 30 °C and 150 rpm, at 10 days (open squares) and 15 days (closed squares gray). The immobilization conditions were 48 h of incubation, 10 mg of cells and a shaking rate of 150 rpm.

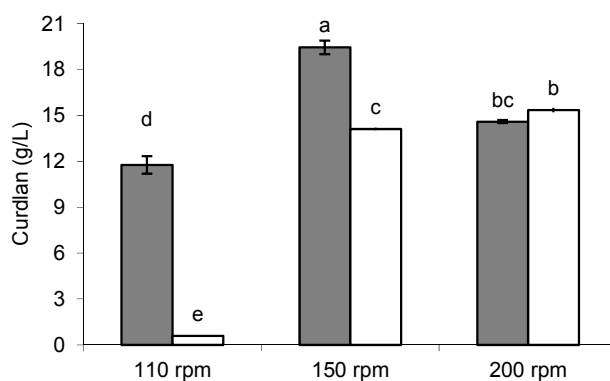


Figure S2. Curdian production by *Agrobacterium* sp. IFO 13140: free cells (open squares) and immobilized cells (closed squares gray). Assay conditions: 10 days of incubation in production medium at 30 °C and under different agitation speeds (rpm). Different letters in different columns represent statistically-significant differences ($p < 0.05$).

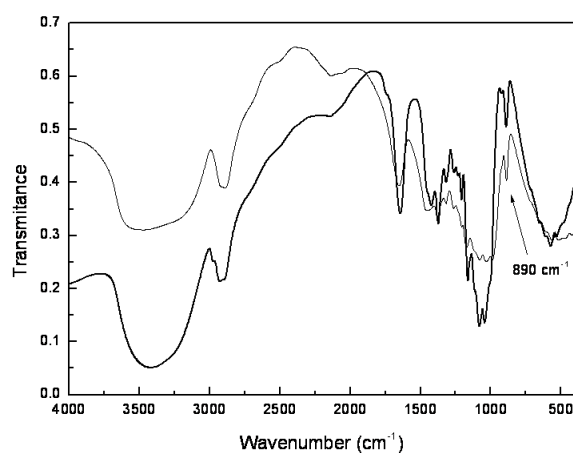


Figure S3. FTIR spectra of curdian from *Agrobacterium* sp. IFO 13140 (thick line) and commercial curdian (thin line).

Table S1. Factors and levels of the asymmetric factorial design $2^3 \times 3^1$ used for the test optimization of *Agrobacterium* sp. IFO 13140 immobilization.

Experiment	Incubation Time (h)	Initial Biomass (mg)	Shaking Rate (rpm)	Cells	Curdlan (g/L)
1	48 (-1)	10 (-1)	150 (-1)	Free (-1)	15.3
2	48 (-1)	10 (-1)	150 (-1)	Free (-1)	14
3	72 (1)	10 (-1)	150 (-1)	Free (-1)	13.4
4	72 (1)	10 (-1)	150 (-1)	Free (-1)	15.5
5	48 (-1)	50 (1)	150 (-1)	Free (-1)	11.9
6	48 (-1)	50 (1)	150 (-1)	Free (-1)	11.9
7	72 (1)	50 (1)	150 (-1)	Free (-1)	13.7
8	72 (1)	50 (1)	150 (-1)	Free (-1)	13.5
9	48 (-1)	10 (-1)	200 (1)	Free (-1)	11.5
10	48 (-1)	10 (-1)	200 (1)	Free (-1)	11.7
11	72 (1)	10 (-1)	200 (1)	Free (-1)	14
12	72 (1)	10 (-1)	200 (1)	Free (-1)	16.7
13	48 (-1)	50 (1)	200 (1)	Free (-1)	11.8
14	48 (-1)	50 (1)	200 (1)	Free (-1)	9.9
15	72 (1)	50 (1)	200 (1)	Free (-1)	15
16	72 (1)	50 (1)	200 (1)	Free (-1)	14
17	48 (-1)	10 (-1)	150 (-1)	immobilized (1)	13.2
18	48 (-1)	10 (-1)	150 (-1)	immobilized (1)	14.7
19	72 (1)	10 (-1)	150 (-1)	immobilized (1)	15.15
20	72 (1)	10 (-1)	150 (-1)	immobilized (1)	14.9
21	48 (-1)	50 (1)	150 (-1)	immobilized (1)	16.8
22	48 (-1)	50 (1)	150 (-1)	immobilized (1)	16.2
23	72 (1)	50 (1)	150 (-1)	immobilized (1)	17.85
24	72 (1)	50 (1)	150 (-1)	immobilized (1)	18.5
25	48 (-1)	10 (-1)	200 (1)	immobilized (1)	17.1
26	48 (-1)	10 (-1)	200 (1)	immobilized (1)	17.2
27	72 (1)	10 (-1)	200 (1)	immobilized (1)	18.5
28	72 (1)	10 (-1)	200 (1)	immobilized (1)	18.1
29	48 (-1)	50 (1)	200 (1)	immobilized (1)	17.3
30	48 (-1)	50 (1)	200 (1)	immobilized (1)	18.8
31	72 (1)	50 (1)	200 (1)	immobilized (1)	19.9
32	72 (1)	50 (1)	200 (1)	immobilized (1)	19
33	48 (-1)	30 (0)	150 (-1)	Free (-1)	15.5
34	72 (1)	30 (0)	150 (-1)	Free (-1)	16.5
35	48 (-1)	30 (0)	200 (1)	Free (-1)	13.3
36	72 (1)	30 (0)	200 (1)	Free (-1)	16.8
37	48 (-1)	30 (0)	150 (-1)	immobilized (1)	16.1
38	72 (1)	30 (0)	150 (-1)	immobilized (1)	15.6
39	48 (-1)	30 (0)	200 (1)	immobilized (1)	17.35
40	72 (1)	30 (0)	200 (1)	immobilized (1)	18.2
41	48 (-1)	30 (0)	150 (-1)	Free (-1)	13.2
42	72 (1)	30 (0)	150 (-1)	Free (-1)	14.6
43	48 (-1)	30 (0)	200 (1)	Free (-1)	12.3
44	72 (1)	30 (0)	200 (1)	Free (-1)	14.7
45	48 (-1)	30 (0)	150 (-1)	immobilized (1)	17.55
46	72 (1)	30 (0)	150 (-1)	immobilized (1)	17.05
47	48 (-1)	30 (0)	200 (1)	immobilized (1)	18
48	72 (1)	30 (0)	200 (1)	immobilized (1)	18.4