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ERRATUM

Enhanced heterologous production of eicosapentaenoic acid in *Escherichia coli* cells that co-express eicosapentaenoic acid biosynthesis *pfa* genes and foreign DNA fragments including a high-performance catalase gene, *vktA*

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There were typing errors in Tables 1 and 2 of the original. The corrected Tables plus an updated reference are shown on the following page.

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Table 1 Fatty acid composition of *E. coli* DH5α and its various transformants and recovered amount of EPA from cultures

Strains[a]	Fatty acid[b] (% total)					Content of EPA (μg ml^{-1})
	16:0	16:1(9)	18:1(11)	EPA	Others[c]	
E. coli DH5α	36.0 ± 1.0	29.6 ± 0.7	22.0 ± 0.6	0	12.5 ± 1.4	0
E. coli DH5α(pEPAΔ1)	35.6 ± 0.9	26.9 ± 1.5	21.8 ± 0.9	2.5 ± 0.2	13.2 ± 2.7	1.7 ± 0.1
E. coli DH5α(pEPAΔ1) (pGBM3)	38.6 ± 1.8	28.2 ± 0.6	20.8 ± 0.3	3.2 ± 1.7	9.2 ± 1.1	1.5 ± 1.3
E. coli DH5α(pEPAΔ1)[pGBM3::sal(*vktA*)]	35.9 ± 3.1	18.5 ± 0.4	22.9 ± 1.9	12.3 ± 0.7	10.3 ± 0.8	7.3 ± 1.2
E. coli DH5α(pEPAΔ1) [pGBM3::sal(Δ*vktA*)]	34.0 ± 0.7	26.7 ± 0.2	24.1 ± 1.2	5.9 ± 0.2	9.2 ± 1.7	3.3 ± 0.2

[a] The cells were grown at 20 °C until the culture had an OD_{660} of 1.0

[b] Fatty acids are denoted as number of carbon atoms:number of double bond. The Δ-position of double bond is presented in parenthesis

[c] Others include 12:0, 14:0, 18:0, and 3-hydroxyl 14:0

Table 2 Catalase activity of *E. coli* DH5α and its various transformants

Strains[a]	Catalase activity (U mg protein^{-1})
E. coli DH5α(pEPAΔ1)	3.3
E. coli DH5α(pEPAΔ1)(pGBM3)	3.2
E. coli DH5α(pEPAΔ1)[pGBM3::sal(*vktA*)]	535
E. coli DH5α(pEPAΔ1)[pGBM3::sal(Δ*vktA*)]	1.7

[a] Cells were washed three times with phosphate buffer (pH 7.5) by centrifugations at 3,000 × *g* for 15 min, and they were then suspended in 0.2 ml of 60 mM potassium phosphate buffer (pH 7.0). Cells were disrupted by sonic oscillation using a Sonifier Cell Disruptor (model W185; Branson Ultrasonic Corp., Danbury, CT) for 40 s in an ice bath. Supernatants were removed after the centrifugation of cell lysates at 20,000 × *g* for 60 min and were used as cell-free extracts

Reference

Okuyama H, Orikasa Y, Nishida T, Watanabe K, Morita N (2007) Bacterial genes responsible for the biosynthesis of eicosapentaenoic and docosahexaenoic acids and their heterologous expression. Appl Environ Microbiol 73:665–670