

Isolation/Identification of TH10

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Enterococcus faecalis TH10 is a highly functional lactic acid bacteria which was isolated and identified from traditional fermented food in Southeast Asia, Tempeh.

Objective

We performed isolation and identification tests on lactic acid bacteria from 16 samples of local alcoholic drinks, side dishes food and the seasoning food distributed widely in Southeast Asia and searched for functional lactic acid bacteria.

Methods

We measured pH and salt concentration in 16 samples. In addition, as a result of having isolation from 16 samples using BCP plate count agar and MRS medium, we selected 189 strains in total. We performed the identification test on these lactic acid bacteria.

Results

When we classified 189 lactic acid bacteria which were isolated and identified, we found 68 strains of *Lactobacillus* genus, 47 strains of *Leuconostoc* genus, 67 strains of *Streptococcus* genus (including *Enterococcus* genus) and 7 strains of *Pediococcus*.

Furthermore, we examined Salt tolerance, Acid tolerance, Acid production, Protein hydrolysis and Aroma production of lactic acid bacteria isolated. Judging comprehensively from these test results, we decided *Enterococcus faecalis* TH10 (lactic acid bacteria isolated from Tempeh) to be our proprietary lactic acid bacteria.

Lactic acid bacteria isolated from traditional fermented foods in Southeast Asia

Samples used	number of isolates	Samples used	number of isolates
Alcoholic drink		Sauce food	
Coconut wine	3	Belachan	15
Rice wine	10	Budu	15
Side dish food		Cinaluk	15
Dadih	9	Kicap	15
Dosai	6	Pekasam	15
Idli	8	Sambal belachan	15
Tape	10	Tauco	15
Tempeh	8	Tempoyak	15
		Trassi	15

Enterococcus faecalis TH10
derived from tempeh

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Our proprietary "TH10" lactic acid bacteria used for OM-X extract is a highly functional lactic acid bacteria carefully selected from 189 kinds of lactic acid bacteria.