

Table S1. Potential selected and identified significant metabolites in *saeu-jeot* samples collected at different fermentation periods.

Name	Estimated m/z charge	Retention time (min)	Chemical formula	ESI*	Adducts	CV (%)**
<i>Organic acids</i>						
Lactic acid	89.0250	4.28	C ₃ H ₆ O ₃	–	M - H	0.08
Fumaric acid	115.0036	12.00	C ₄ H ₄ O ₄	–	M - H	0.06
Malic acid	133.0153	3.72	C ₄ H ₆ O ₅	–	M - H	0.08
Gluconic acid	195.0431	5.57	C ₆ H ₁₂ O ₇	–	M - H	0.12
<i>Amino acids</i>						
Alanine	88.0409	12.42	C ₃ H ₇ NO ₂	–	M - H	0.15
Pyroglutamic acid	128.0351	5.57	C ₅ H ₇ NO ₃	–	M - H	0.11
Asparagine	131.0460	9.67	C ₄ H ₈ N ₂ O ₃	–	M - H	0.05
Isoleucine	130.0871	4.31	C ₆ H ₁₃ NO ₂	–	M - H	0.05
Aspartic acid	132.0300	12.00	C ₄ H ₇ NO ₄	–	M - H	0.02
Histidine	154.0616	9.81	C ₆ H ₉ N ₃ O ₂	–	M - H	0.12
Tyrosine	180.0656	5.15	C ₉ H ₁₁ NO ₃	–	M - H	0.11
Tryptophan	203.0815	4.00	C ₁₁ H ₁₂ N ₂ O ₂	–	M - H	0.04
<i>Other metabolites</i>						
Histamine	110.0725	9.78	C ₅ H ₉ N ₃	–	M - H	0.30
Ornithine	131.0824	10.93	C ₅ H ₁₂ N ₂ O ₂	–	M - H	0.07
Guanine	150.0417	3.72	C ₅ H ₅ N ₅ O	–	M - H	0.04
N-Acetylserotonin	219.1004	11.84	C ₁₂ H ₁₄ N ₂ O ₂	+	M + H	0.07

*ESI: electrospray ionization

**CV, coefficient of variance

Table S2. Change in BA concentrations in *saeu-jeot* samples collected at different fermentation periods.

Fermentation period (days)	TRP (mg/kg)	PUT (mg/kg)	CAD (mg/kg)	HIS (mg/kg)	SRT (mg/kg)	TYR (mg/kg)	SPD (mg/kg)	NOR (mg/kg)	DOP (mg/kg)	SP (mg/kg)	Total BA (mg/kg)
15	1.24±0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30	1.21±0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45	1.16±0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
60	1.26±0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
90	1.35±0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
120	1.23±0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
180	1.32±0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
270	1.25±0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
360	1.33±0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
LOD											
LOQ											

Abbreviations: BA, biogenic amine; TRP, tryptamine; PUT, putrescine; CAD, cadaverine; HIS, histamine; SRT, serotonin; TYM, tyramine; SPD, spermidine; NOR, norepinephrine; DOP, dopamine hydrochloride; SP, spermine; ND, not detected; LOD, Limit of detection; LOQ, limit of quantification.

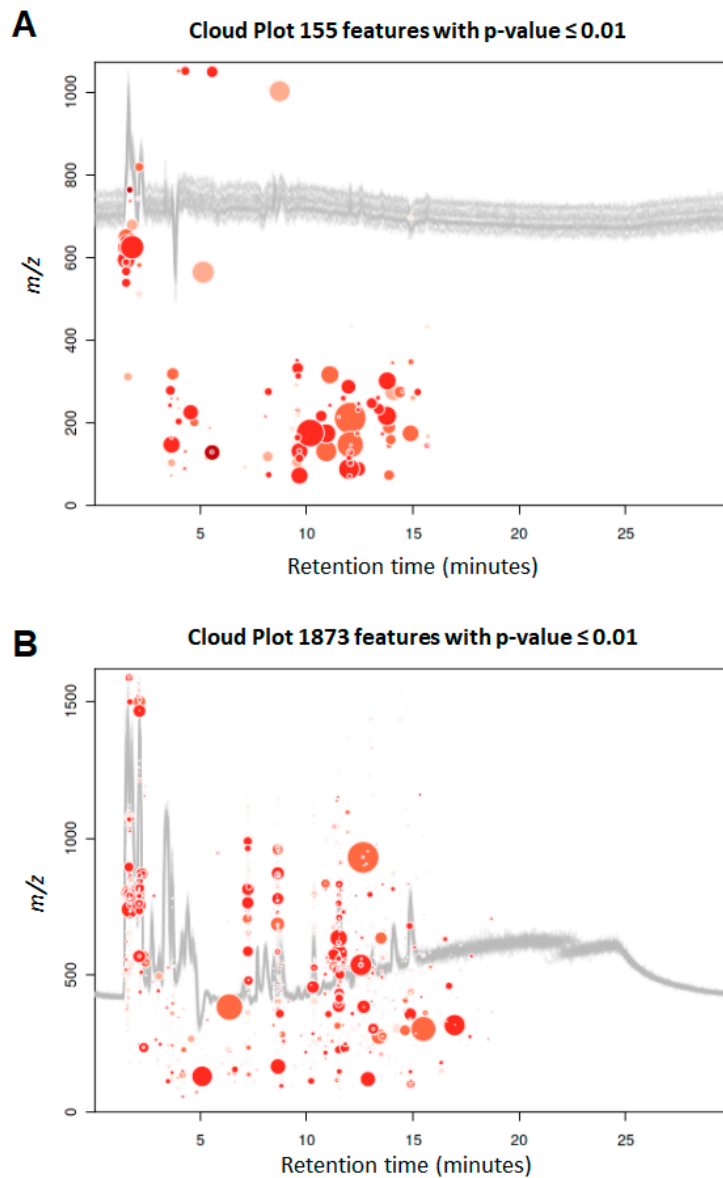


Figure S1. Cloud plot of chemical fingerprinting from multigroup analysis using XCMS Online software at different periods of *saeu-jeot* fermentation. Results from multigroup analysis using XCMS Online software are shown here. (A) Negative and (B) positive ionization modes.