Table 1 (Supporting Information). Observed masses of ACSOs and FMOC derivatives of γ-glutamyl peptides and SAC from garlic extracts by HPLC/ESI-MS analyses

| Compound | Molecular Formula | Molecular mass | Major ion | Identity | HPLC/ESI-MS method |
|---|---|---|---|---|---|
| Alliin | $C_6H_{11}NO_3S$ | 177.22 | 178.23 | $[M + H]^+$ | 1[a] |
| Isoalliin | $C_6H_{11}NO_3S$ | 177.22 | 178.23 | $[M + H]^+$ | 1 |
| Cycloalliin | $C_6H_{11}NO_3S$ | 177.22 | 178.23 | $[M + H]^+$ | 1 |
| Methiin | $C_4H_9NO_3S$ | 151.18 | 152.23 | $[M + H]^+$ | 1 |
| FMOC-GSMC | $C_{24}H_{26}N_2O_7S$ | 486.54 | 487.41 | $[M + H]^+$ | 2[b] |
| | | | 509.39 | $[M + Na]^+$ | |
| FMOC-GSAC | $C_{26}H_{28}N_2O_7S$ | 512.57 | 513.44 | $[M + H]^+$ | 2 |
| | | | 535.44 | $[M + Na]^+$ | |
| FMOC-GSPC | $C_{26}H_{28}N_2O_7S$ | 512.57 | 513.34 | $[M + H]^+$ | 2 |
| | | | 535.36 | $[M + Na]^+$ | |
| FMOC-SAC | $C_{21}H_{21}NO_4S$ | 383.46 | 384.37 | $[M + H]^+$ | 2 |
| | | | 406.36 | $[M + Na]^+$ | |

[a] Conditions: column, Shodex Asahipak NH2P-50 2D (5 µm, 150 x 2 mm, Showa Denko, Tokyo, Japan); column temperature, 30 ºC; flow rate, 0.2 mL/min; mobile phase, acetonitrile/water (84/16 v/v) containing 0.1% formic acid.

[b] Conditions: column, Kinetex C18 (2.6 µm, 150 x 4.6 mm inner diameter, Phenomenex, Torrance, CA); column temperature, 40ºC; flow rate, 1 mL/min; mobile phase, 0.1% formic acid in water (eluent A) and 0.1% formic acid in acetonitrile (eluent B); gradient, 0 min to 20 min from 35% to 50% B (liner gradient), 20 min to 23 min from 50% B to 80% B (linear gradient), 23 min to 28 min with 80% B, 28 min to 30 min from 80% B to 35%B (linear gradient).

In both methods, typical settings of the main tuning parameters were: capillary voltage, 3 kV; cone voltage, 15 V; source temperature, 100 ºC; and desolvation temperature, 350 ºC. Ions were formed using ESI in positive mode.

Table 2 (Supporting Information). Changes in lactic acid bacteria (LAB), aerobic plate count (APC), pH, and titratable acidity (TA) in brine, and moisture content of garlic cloves during storage of pickled garlic

| Storage time (weeks) | Packing [a] | LAB (log CFU/mL) | APC (log CFU/mL) | pH | TA (% as lactic acid) | Moisture content (%) |
|---|---|---|---|---|---|---|
| 2 | CNF | 2.28 | 2.89 | 3.37 | 1.87 | 65.3 |
| | PNF | < 1.0 | < 1.0 | 3.4 | 1.85 | 65.0 |
| | CF | 6.33 | 2.15 | 3.63 | 1.45 | 72.6 |
| | PF | < 1.0 | 1.37 | 3.63 | 1.42 | 72.2 |
| | RF | 8.09 | 1.0 | 4.22 | 1.41 | 68.9 |
| | | | | | | |
| 5 | CNF | < 1.0 | 1.82 | 3.49 | 2.06 | 66.9 |
| | PNF | < 1.0 | 1.0 | 3.59 | 1.97 | 65.8 |
| | CF | 1.90 | 2.06 | 3.6 | 1.47 | 73.1 |
| | PF | < 1.0 | 1.0 | 3.66 | 1.25 | 71.5 |
| | RF | 7.88 | -[b] | 4.16 | 1.48 | 68.0 |
| | | | | | | |
| 8 | CNF | - | - | 3.5 | 2.06 | 68.2 |
| | PNF | - | - | 3.5 | 2.03 | 67.3 |
| | CF | 4.15 | 1.30 | 3.66 | 1.55 | 73.5 |
| | PF | 1.18 | 1.18 | 3.7 | 1.4 | 72.7 |
| | RF | 8.05 | 2.11 | 4.12 | 1.5 | 68.0 |
| | | | | | | |
| 28 | CNF | < 1.0 | 1.80 | 3.51 | 1.97 | 69.2 |
| | PNF | < 1.0 | < 1.0 | 3.47 | 1.95 | 69.8 |
| | CF | < 1.0 | 2.23 | 3.57 | 1.46 | 75.3 |
| | PF | < 1.0 | < 1.0 | 3.61 | 1.31 | 74.7 |
| | RF | 7.34 | 1.90 | 4.03 | 1.44 | 67.1 |
| | | | | | | |
| 52 | CNF | < 1.0 | 1.3 | 3.53 | 2.07 | 68.5 |
| | PNF | < 1.0 | 1.0 | 3.5 | 2.06 | 68.1 |
| | CF | < 1.0 | < 1.0 | 3.6 | 1.55 | 76.9 |
| | PF | < 1.0 | 1.0 | 3.65 | 1.41 | 75.1 |
| | RF | 5.8 | 2.4 | 4.03 | 1.54 | 66.3 |

[a] CNF = control, non-fermented pickled garlic. PNF = pasteurized, non-fermented pickled garlic. CF = control, fermented pickled garlic. PF = pasteurized, fermented pickled garlic. RF = refrigerated, fermented pickled garlic.
[b] -, not analyzed.