

Fig. 1

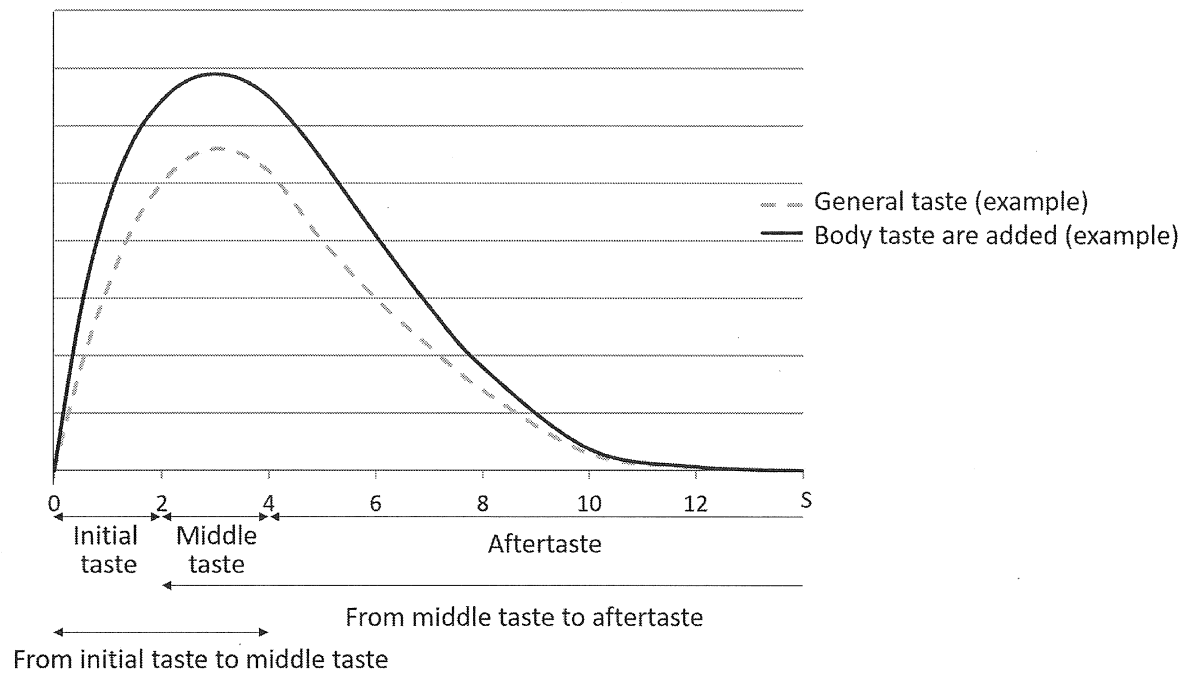


Fig. 2

Umami (Initial to Middle)

	Panelist 1	Panelist 2	Panelist 3	Panelist 4	Panelist 5	Panelist 6	Panelist 7	Avg.	SD
Control	3	3	3	3	3	3	3	3.0	
γ -Glu-Tyr	4	3	4	4	3	3	3.5	3.5	0.5
γ -Glu- γ -Glu-Tyr	4	4	3	4	4	4	5	4.0	0.6
γ -Glu- γ -Glu- γ -Glu-Tyr	4	5	3	4	5	4	4	4.1	0.7
γ -Glu- γ -Glu- γ -Glu- γ -Glu-Tyr	4	4	4	3	4	4	4	3.9	0.4
γ -Glu-Val-Gly	3	4	3	3	4	5	3	3.6	0.8

Umami (Middle to After)

	Panelist 1	Panelist 2	Panelist 3	Panelist 4	Panelist 5	Panelist 6	Panelist 7	Avg.	SD
Control	3	3	3	3	3	3	3	3.0	
γ -Glu-Tyr	4	4	4	4	4	3	4	3.9	0.4
γ -Glu- γ -Glu-Tyr	5	4	4	3	4	4	3	3.9	0.7
γ -Glu- γ -Glu- γ -Glu-Tyr	5	5	3	3	4	4	4	4.0	0.8
γ -Glu- γ -Glu- γ -Glu- γ -Glu-Tyr	4	4	2	3	4	5	4	3.7	1.0
γ -Glu-Val-Gly	4	5	5	5	5	5	4.5	4.8	0.4

Sweet taste (Initial to Middle)

	Panelist 1	Panelist 2	Panelist 3	Panelist 4	Panelist 5	Panelist 6	Panelist 7	Avg.	SD
Control	3	3	3	3	3	3	3	3.0	
γ -Glu-Tyr	4	4	3	3	3	4	3.5	3.5	0.5
γ -Glu- γ -Glu-Tyr	3	4	5	4	4	4	4	4.0	0.6
γ -Glu- γ -Glu- γ -Glu-Tyr	4	4	4	4	5	4	5	4.3	0.5
γ -Glu- γ -Glu- γ -Glu- γ -Glu-Tyr	4	4	4	3	4	4	4	3.9	0.4
γ -Glu-Val-Gly	4	4	3	3	3	4	4	3.6	0.5

Sweet taste (Middle to After)

	Panelist 1	Panelist 2	Panelist 3	Panelist 4	Panelist 5	Panelist 6	Panelist 7	Avg.	SD
Control	3	3	3	3	3	3	3	3.0	
γ -Glu-Tyr	4	4	4	3	4	4	4	3.9	0.4
γ -Glu- γ -Glu-Tyr	3	4	4	3	4	4	4	3.7	0.5
γ -Glu- γ -Glu- γ -Glu-Tyr	4	5	4	4	5	4	4	4.3	0.5
γ -Glu- γ -Glu- γ -Glu- γ -Glu-Tyr	4	4	3	3	4	3	4	3.6	0.5
γ -Glu-Val-Gly	3	5	4	4	5	5	4	4.3	0.8

Fig. 3

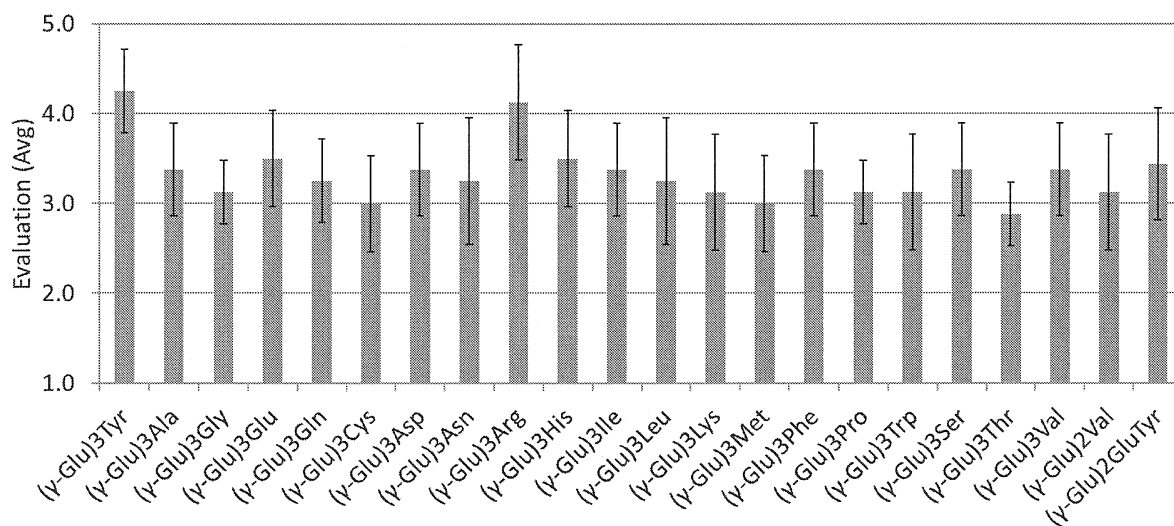


Fig. 4

	Panelist 1	Panelist 2	Panelist 3	Panelist 4	Panelist 5	Panelist 6	Panelist 7	Panelist 8	Avg.	SD
(γ-Glu)3Tyr	4	5	4	4	5	4	4	4	4.3	0.5
(γ-Glu)3Ala	4	4	3	3	3	3	4	3	3.4	0.5
(γ-Glu)3Gly	3	3	3	3	4	3	3	3	3.1	0.4
(γ-Glu)3Glu	3	4	4	3	4	4	3	3	3.5	0.5
(γ-Glu)3Gln	3	3	3	3	3	4	3	4	3.3	0.5
(γ-Glu)3Cys	3	3	3	3	4	2	3	3	3.0	0.5
(γ-Glu)3Asp	3	3	3	4	4	4	3	3	3.4	0.5
(γ-Glu)3Asn	3	3	2	3	3	4	4	4	3.3	0.7
(γ-Glu)3Arg	4	5	4	3	5	4	4	4	4.1	0.6
(γ-Glu)3His	3	3	3	3	4	4	4	4	3.5	0.5
(γ-Glu)3Ile	3	3	3	3	4	3	4	4	3.4	0.5
(γ-Glu)3Leu	3	2	3	3	4	4	3	4	3.3	0.7
(γ-Glu)3Lys	3	3	2	3	3	4	4	3	3.1	0.6
(γ-Glu)3Met	3	3	2	3	3	3	4	3	3.0	0.5
(γ-Glu)3Phe	3	4	3	3	4	3	4	3	3.4	0.5
(γ-Glu)3Pro	3	3	3	3	4	3	3	3	3.1	0.4
(γ-Glu)3Trp	3	3	2	3	4	3	3	4	3.1	0.6
(γ-Glu)3Ser	3	3	3	3	4	3	4	4	3.4	0.5
(γ-Glu)3Thr	3	3	2	3	3	3	3	3	2.9	0.4
(γ-Glu)3Val	3	4	3	3	3	4	3	4	3.4	0.5
(γ-Glu)2Val	3	2	3	3	3	3	4	4	3.1	0.6
(γ-Glu)2GluTyr	3	3	3	3	4	3	4	4.5	3.4	0.6