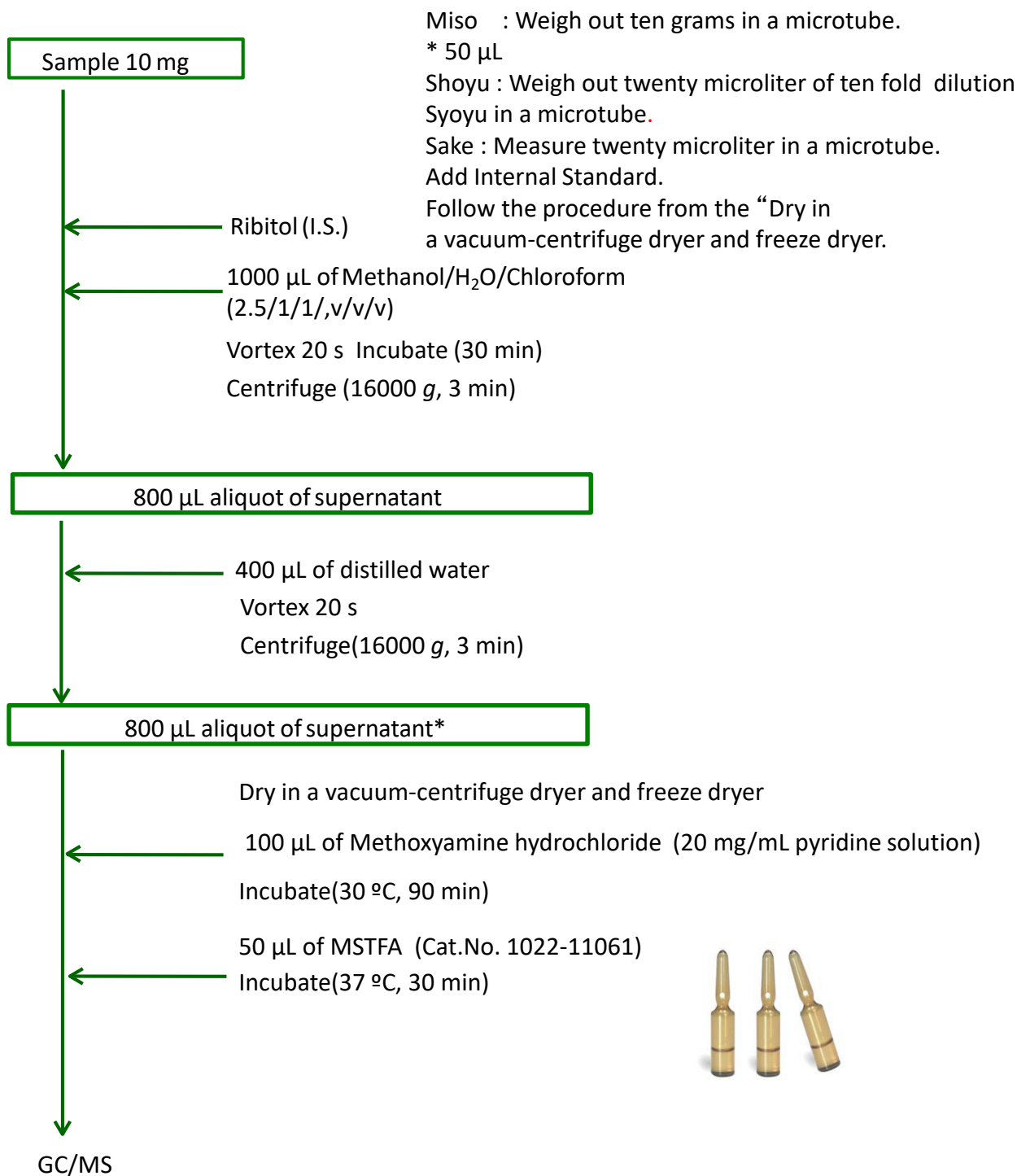


Fermented foods like Miso, Sake, Syoyu made from cereals contain amino acids, organic acids, sugar and so on. In this study, they were extracted, derivatized, and analysed with gas chromatography/mass spectrometry. The silylated compounds in Miso, Sake and Syoyu extracts were identified using InertCap 5MS Metabolomics metabolites Library (No.81).

Procedure of sample preparation

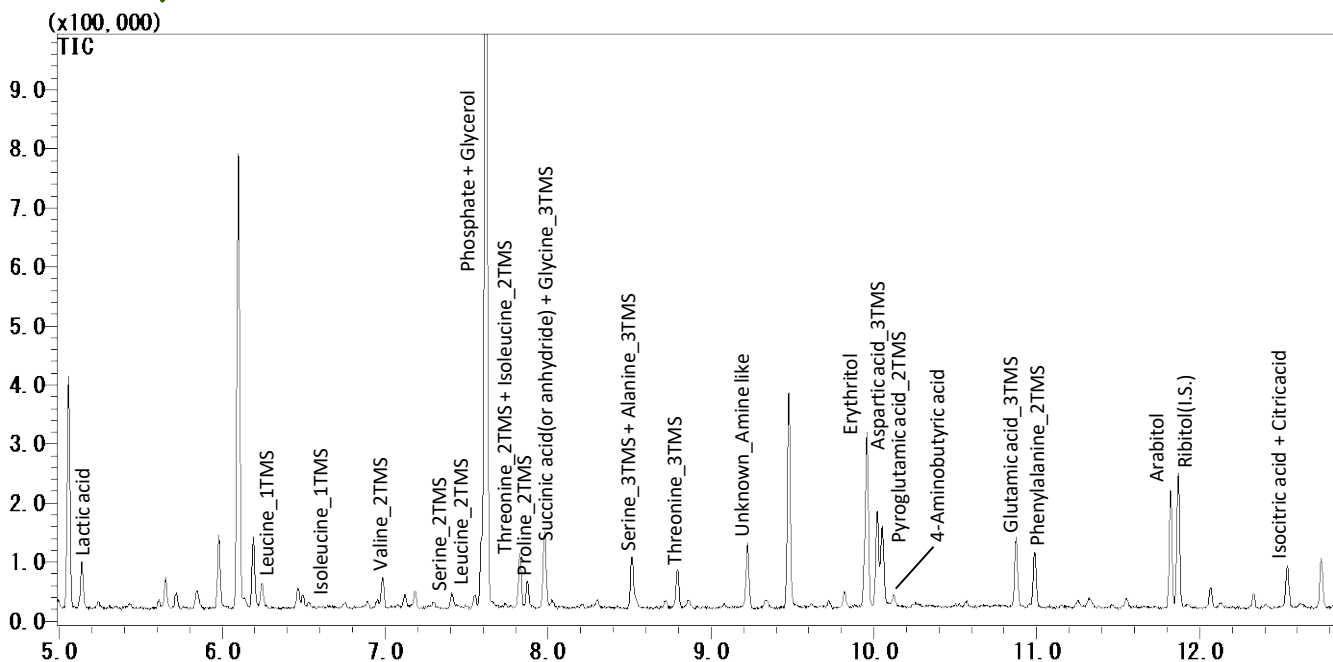
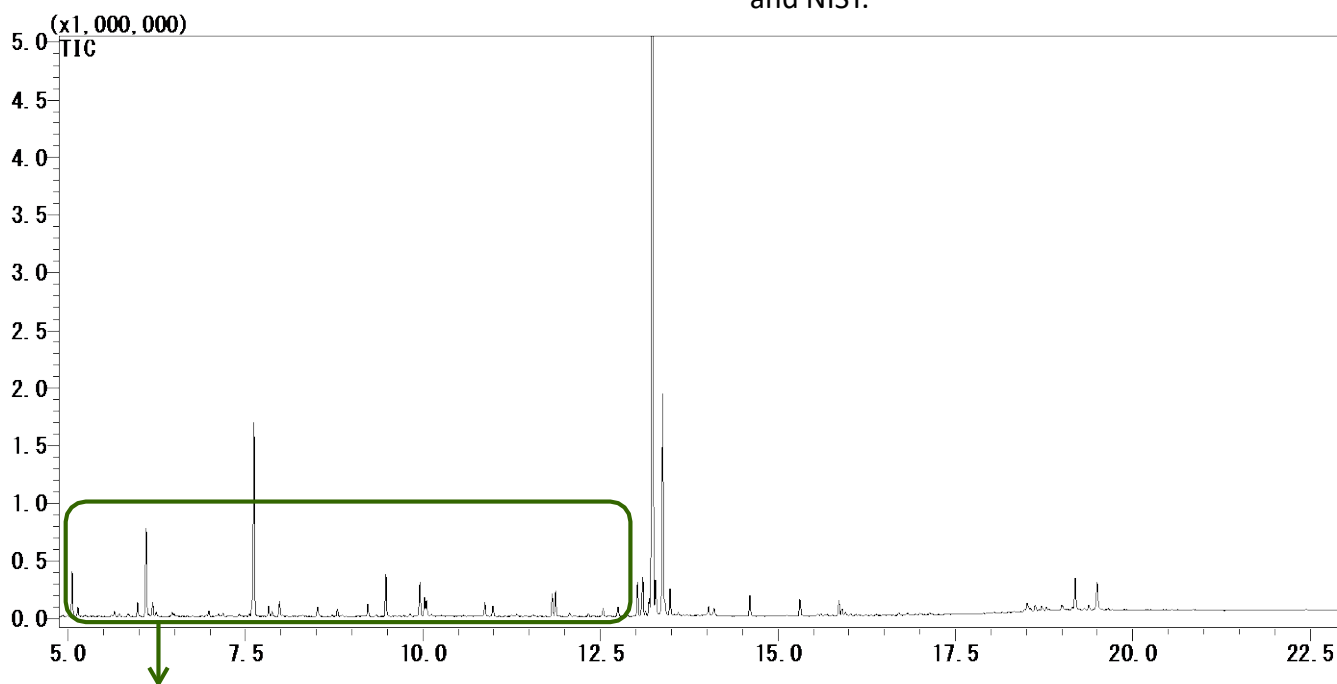


Analysis of Miso

GC/MS Conditions

System	: GC-MS
Column	: InertCap 5MS Metabolomics 0.25 mm I.D. × 30 m df = 0.25 μm (Cat.No. 1010-18952)
Injection	: Split Constant Pressure 75 kPa
Injection Temp.	: 230 °C
Oven Temp.	: 80 °C (2 min) - 15 °C/min - 330 °C (13 min)
Carrier gas	: Helium
Septum purge flow	: 5 mL/min
Split ratio	: 25:1
Interface Temp.	: 250 °C
Ion source Temp.	: 200 °C
Ionization Voltage	: 70 eV
Scan range	: m/z 85 - 500
Inj. Vol.	: 1 μL

The silylated compounds in Miso extract were identified based on retention index and mass spectrum using InertCap metabolites library (Technical note No.81) and NIST.

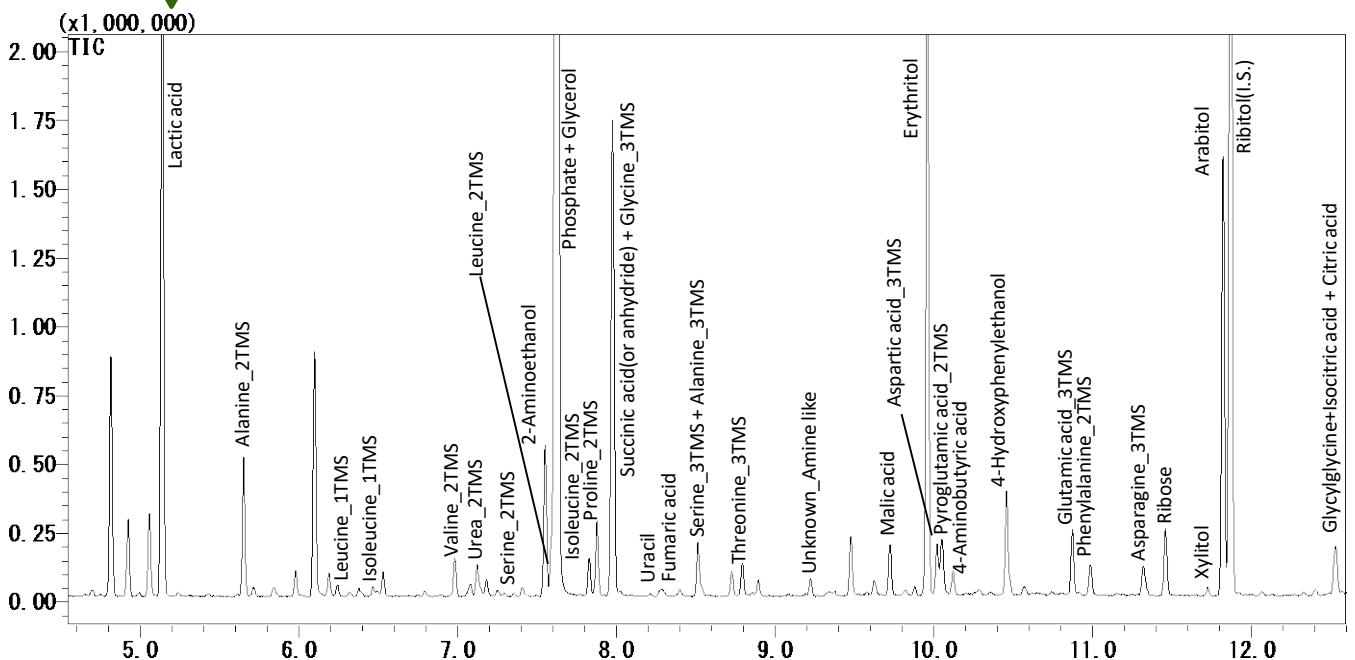
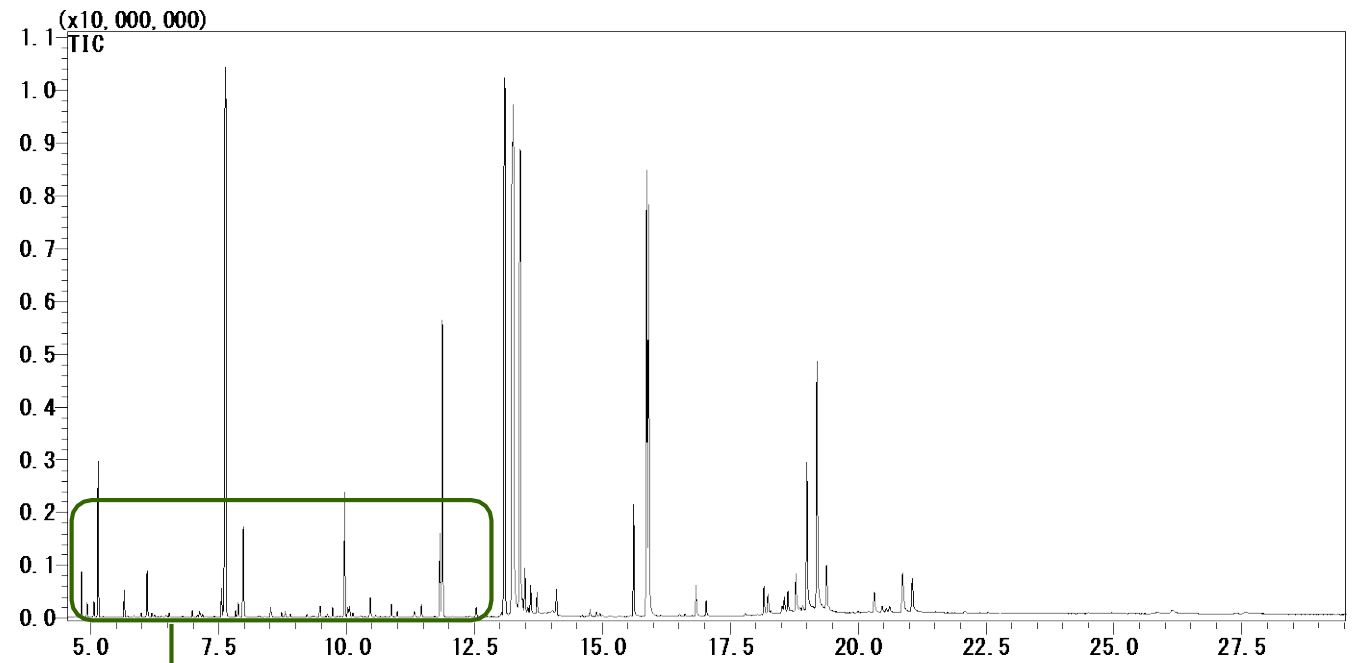


Analysis of Sake

GC/MS Conditions

System Column : GC-MS
 : InertCap 5MS Metabolomics 0.25 mm I.D. × 30 m df =
 0.25 μm (Cat.No. 1010-18952)
 Injection : Split Constant Pressure 75 kPa
 Inj. Temp. : 230 °C
 Oven Temp. : 80 °C (2 min) - 15 °C/min - 330 °C (13 min)
 Carrier gas : Helium
 Septum purge flow : 5 mL/min
 Split ratio : 25:1
 Interface Temp. : 250 °C
 Ion source Temp. : 200 °C
 Ionization Voltage : 70 eV
 Scan range : m/z 85 - 500
 Inj. Vol. : 1 μL

The silylated compounds in Sake extract were identified based on retention index and mass spectrum using InertCap metabolites library (Technical note No.81) and NIST.

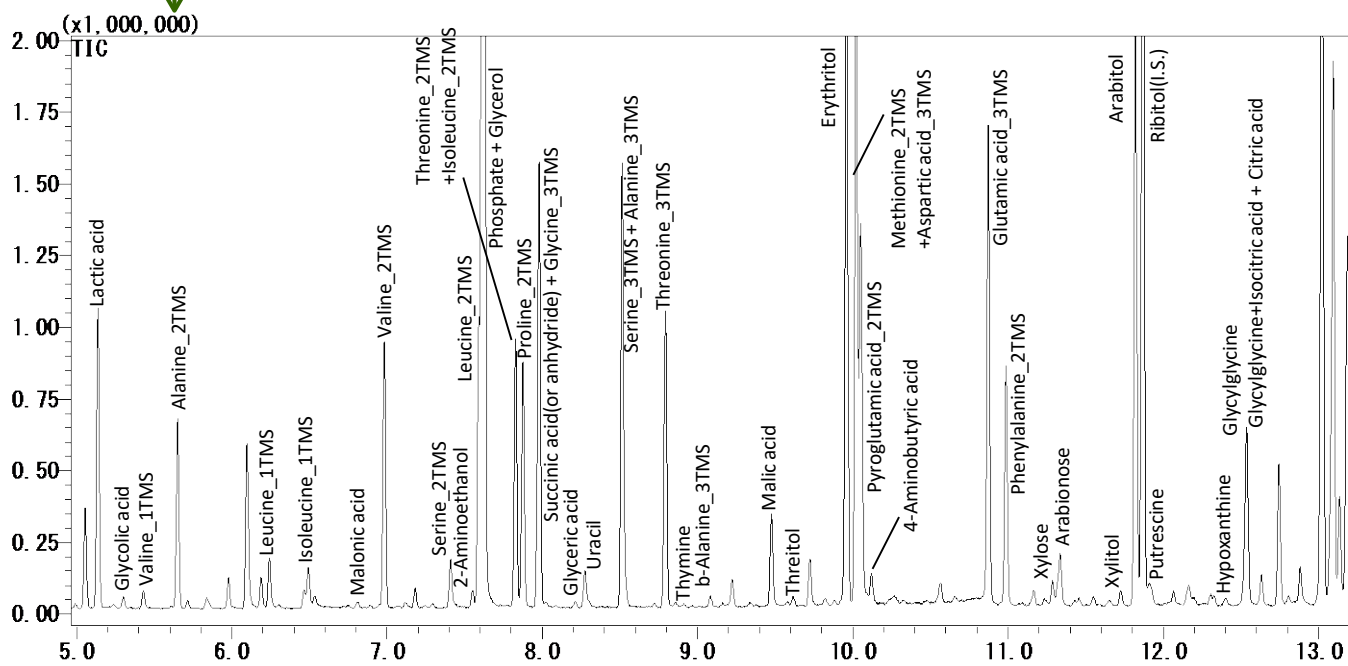
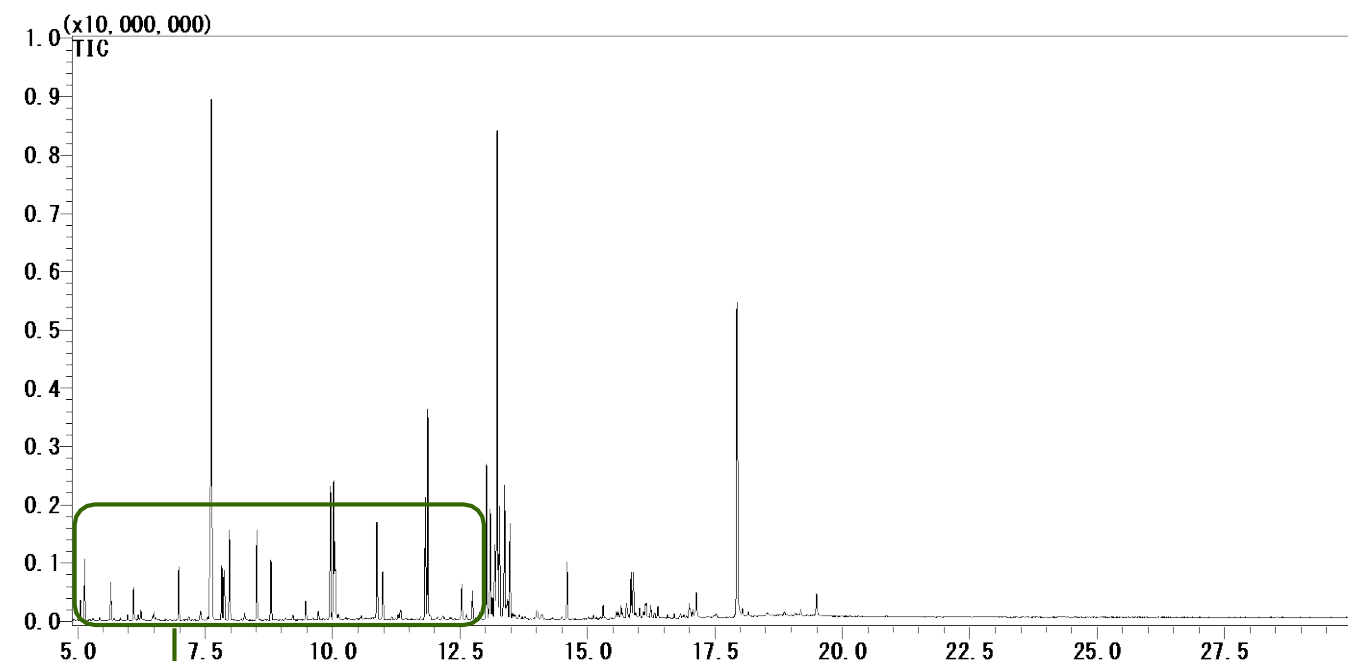


Analysis of Syoyu

GC/MS Conditions

System Column : GC-MS
 : InertCap 5MS Metabolomics 0.25 mm I.D. × 30 m df = 0.25 μm (Cat.No. 1010-18952)
 Injection : Split Constant Pressure 75 kPa
 Inj. Temp. : 230 °C
 Oven Temp. : 80 °C (2 min) - 15 °C /min - 330 °C (13 min)
 Carrier gas : Helium
 Septum purge flow : 5 mL/min
 Split ratio : 25:1
 Interface Temp. : 250 °C
 Ion source Temp. : 200 °C
 Ionization Voltage : 70 eV
 Scan range : m/z 85 - 500
 Inj. Vol. : 1 μL

The silylated compounds in Syoyu extract were identified based on retention index and mass spectrum using InertCap metabolites library (Technical note No.81) and NIST.



Aloutput is available for peak identification. In that case, it is convenient to use the *n*-alkane standard solution C9-C40 in *n*-Hexane.

What is Aloutput?

- Software for metabolome analyses based on Excel (upto 2007)
- Peak identification based on retention indices and mass spectrum
- Auto peak identification, PCA analysis, PLS analysis, t-test
- Free software!
- Everybody can download, now!

http://prime.psc.riken.jp/Metabolomics_Software/Aloutput/index.html

n-Alkane standard solution C9-C40 in *n*-Hexane

Concentration: 50 µg/mL each component of *n*-Hexane

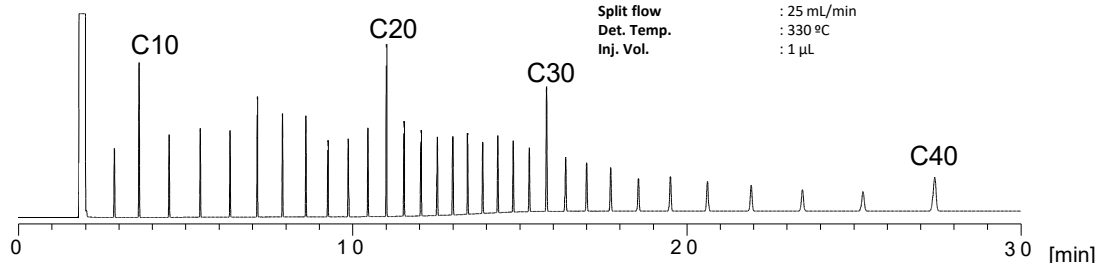
※C10,C20,C30,C40 are 100 µg/mL

Volume: 1 mL

Packaging: ampoule of 1 mL

Conditions

System : GC-FID
 Column : InertCap 5MS Mtabolomics
 0.25 mm I.D. × 30 m, df = 0.25 µm
 Injection Inj. : Split 120 kPa
 Temp. : 230°C
 Oven Temp. : 100 °C (2 min) -20 °C/min - 330 °C (17 min hold)
 Carrier gas : Helium
 Split flow : 25 mL/min
 Det. Temp. : 330 °C
 Inj. Vol. : 1 µL



Description	Volume	Cat.No.
<i>n</i> -Alkane standard solution C9-C40 in C6 (cold strage)	1 mL	1021-58321
	1 mL × 5	1021-58325

This product contains hazardous material which requires special freight handling, and then additional charges apply. Please contact your local distributor.

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