

# Reference Material for qNMR

qNMR is a quantitative technique using the physical utilizing the property that the ratio of the signal area observed on the NMR spectrum is proportional to the ratio of the number of nuclei in the molecule. Reference material is necessary for qNMR measurement, and the requirements for a reference material for qNMR are [1] Traceability of purity value is guaranteed, [2] the compound to be measured and the NMR signal do not overlap, [3] solubility in the deuterium solvent used. Fujifilm Wako has a various CRM (TraceSure®) / analytical standard (non-CRM) for qNMR.

## TraceSure® (CRM)

- ✓ Certification value can be accepted internationally by the MRA of ILAC/APAC
- ✓ Reference material with reliable SI traceable purity values

## Analytical Standard for qNMR (non-CRM)

- ✓ Analytical standards that uses TraceSure® to give purity value by qNMR
- ✓ Large-capacity and inexpensive

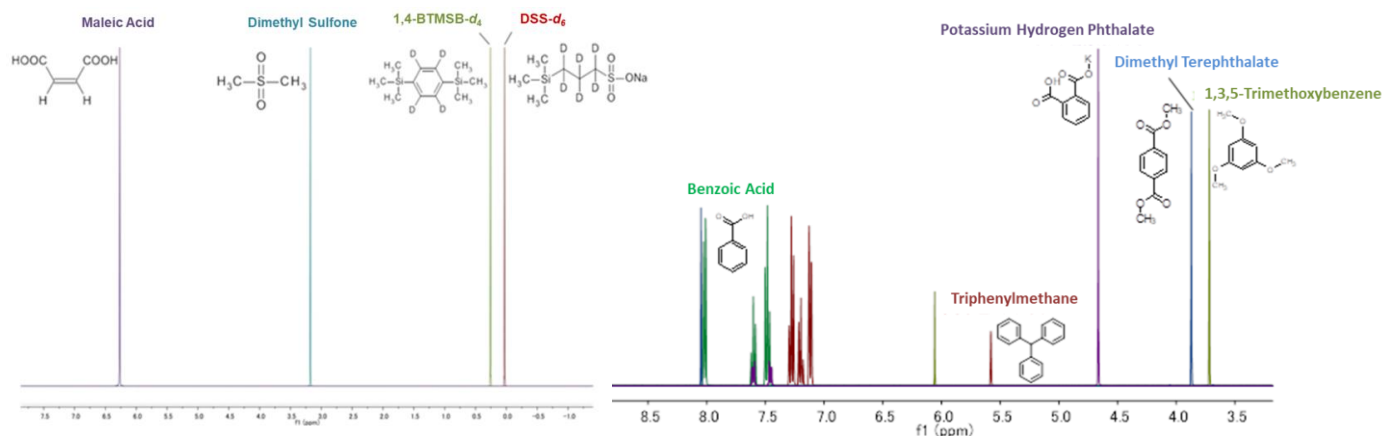
## Features

- ✓ Lineup of CRM / analytical standard with various solubility
- ✓ Lineup of CRM / analytical standard with various chemical shift

## Solubility Information

	TraceSure® (CRM)				Analytical standard for qNMR				
	Maleic Acid	Dimethyl Sulfone	1,4-BTMSB- <i>d</i> <sub>4</sub>	DSS- <i>d</i> <sub>6</sub>	Benzoic Acid	Triphenyl methane	Potassium Hydrogen Phthalate	Dimethyl Terephthalate	1,3,5-Trimethoxy benzene
Acetone- <i>d</i> <sub>6</sub>	○	○	○	×	○	○	×	○	○
CDCl <sub>3</sub>	×	○	○	×	○	○	×	○	○
DMSO- <i>d</i> <sub>6</sub>	○	○	△	○	○	○	△	△	○
CD <sub>3</sub> OD	○	○	○	○	○	×	×	×	○
D <sub>2</sub> O	○	○	×	○	×	×	○	×	×
CD <sub>2</sub> Cl <sub>2</sub>	×	○	○	×	○	○	×	○	○

## Chemical Shift



## Product List

### TraceSure®(CRM)

Code No.	Product Name	Grade	Volume
024-17031	1,4-BTMSB- $d_4$ Reference Material [CRM]	TraceSure®	50 mg
020-17033			50mg×4
048-33271	Dimethyl Sulfone Reference Material [CRM]	TraceSure®	100 mg
044-31671	DSS- $d_6$ Reference Material [CRM]	TraceSure®	50 mg
040-31673			50 mg×4
135-17951	Maleic Acid Reference Material [CRM]	TraceSure®	100 mg

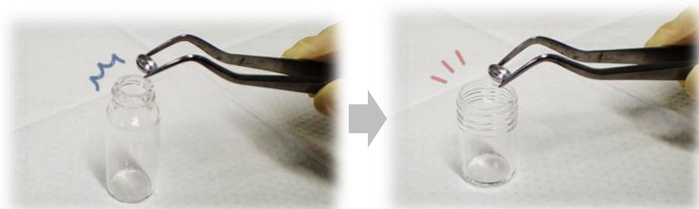
### Analytical Standard for qNMR (non-CRM)

Code No.	Product Name	Grade	Volume
028-19011	Benzoic Acid Standard	for qNMR	500 mg
046-34171	Dimethyl Terephthalate Standard	for qNMR	500 mg
166-27911	Potassium Hydrogen Phthalate Standard	for qNMR	500 mg
207-20411	1,3,5-Trimethoxybenzene Standard	for qNMR	500 mg
204-20421	Triphenylmethane Standard	for qNMR	500 mg

### Standard Solution for qNMR (non-CRM)

Code No.	Product Name	Grade	Volume
020-19211	1,4-BTMSB- $d_4$ Standard Solution (500 mg/L DMSO- $d_6$ Solution)	for qNMR	1 mL×5 A
041-33641	DSS- $d_6$ Standard Solution (500 mg/L Deuterium Oxide Solution)	for qNMR	1 mL×5 A

### Screw-mouthed Quartz Vial



The Quartz Screw Vials are **wide-mouthed vials with no elution of impurities**, which are ideal for preparing samples for qNMR requiring accurate weighing.

Code No.	Product Name	Volume
296-36291	Quartz Screw Vials 5 mL	10 EA
299-36301	Quartz Screw Vials 10 mL	10 EA

Listed products are intended for laboratory research use only, and not to be used for drug, food or human use. / Please visit FUJIFILM Wako Laboratory Chemicals site: <https://labchem-wako.fujifilm.com/> / This leaflet may contain products that cannot be exported to your country due to regulations. / Bulk quote requests for some products are welcomed. Please contact us.

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