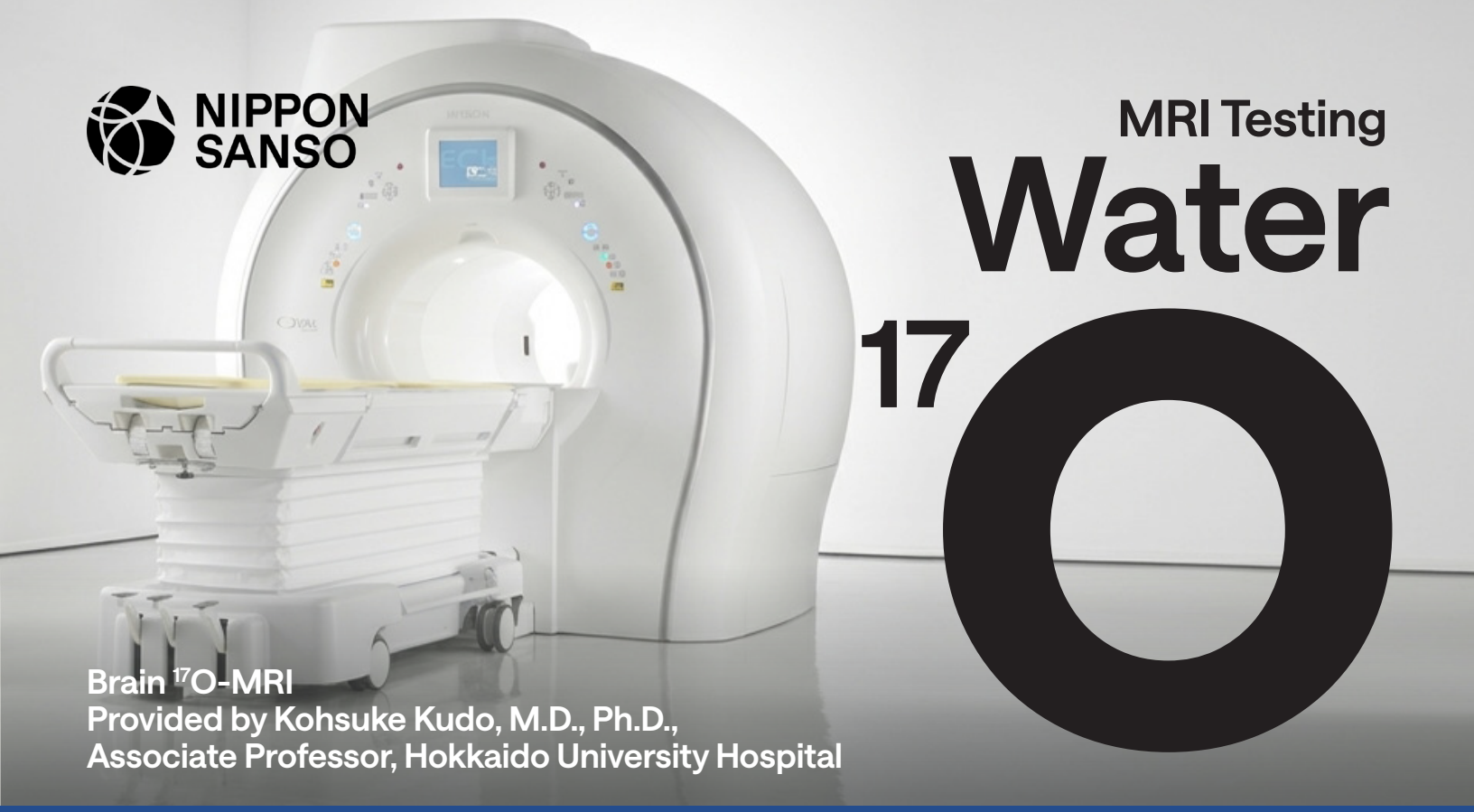
NIPPON SANSO

MRI Testing

Water ^{17}O



Brain ^{17}O-MRI
Provided by Kohsuke Kudo, M.D., Ph.D.,
Associate Professor, Hokkaido University Hospital

Ultra-Pure Oxygen Cryogenic Distillation
A Revolutionary New Process

Quality Assurance **GMP & ISO9001**

Analytic contents customized to suit specific needs

Capacity **30kg per year**

Ensures a stable and secure supply

Enrichment **10atom%**

Dedicated plant to the manufacturing of 10atom% product



Product Specifications

- **Formula:** $H_2{}^{17}O$
- **Chemical Purity:** >99.99%
- **Packing Size:** 10g
- **Container:** Glass vial septum top and aluminum crimp seal



Test	Unit	Specification	Method
Oxygen-^{18}O	atom%	–	MS
Oxygen-^{17}O	atom%	≧ 10	MS
Oxygen-^{16}O	atom%	–	MS
Appearance	–	Clear, Colorless, No visible object	Visual check
Chemical purity	%	> 99.99	*
Na	mg/L	< 2	ICP-MS
Mg	mg/L	< 1	ICP-MS
K	mg/L	< 1	ICP-MS
Ca	mg/L	< 1	ICP-MS
Fe	mg/L	< 0.1	ICP-MS
Cu	mg/L	< 1	ICP-MS
Zn	mg/L	< 1	ICP-MS
NH_4+	mg/L	< 1	IC
F^-	mg/L	< 1	IC
Cl^-	mg/L	< 1	IC
Br^-	mg/L	< 1	IC
NO_3^-	mg/L	< 1	IC
PO_4^{3-}	mg/L	< 1	IC
SO_4^{2-}	mg/L	< 1	IC
I^-	mg/L	< 1	IC
Total Organic Carbon	mg/L	< 5	TOC analyzer
Conductivity	mS/m	< 0.3	Conductivity meter
pH	–	5.5-8.0	pH meter
Microbial limit	cfu/mL	< 1	Membrane filter
Pyrogenecity	EU/mL	< 0.25	LAL

*Chemical purity value is calculated by subtracting the sum total of measured impurities from 100%.

Water ^{17}O is manufactured by Nippon Sanso Matheson's sister company, Nippon Sanso Corporation, Tokyo, Japan. Nippon Sanso Matheson and Nippon Sanso Corporation are members of Nippon Sanso Holdings Corporation.

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NIPPON SANSO

us.nipponsanso.com
800-416-2505
mathesonsales@us.nipponsanso.com