

ISOTEC® Stable Isotopes

Your Source for MRI/MRS Imaging Products

Stable Isotopes use in MRI/MRS imaging research has advanced exponentially and ISOTEC® is committed to be your One Stop Source for:

- ¹³C, ¹⁵N, D, ¹⁷O, ¹⁸O labeled products
- He-3, Xe-129 Noble Gases
- Gas mixes

Compounds of Interest

Cat. No	Description	Isotopic Purity
489867	L-Alanine-1- ¹³ C	99 atom % ¹³ C
363006	Ammonium- ¹⁵ N Acetate	98 atom % ¹⁵ N
489972	L-Aspartic Acid-1- ¹³ C	99 atom % ¹³ C
665223	Acetylene Decarboxylic Acid-1- ¹³ C, Disodium Salt	99 atom % ¹³ C
679860	tert-Butan-2- ¹³ C, d ₅ -ol	99 atom % ¹³ C, 98 atom % D
609269	Choline Chloride- ¹⁵ N	98 atom % ¹⁵ N
324523	Ethanol-1- ¹³ C	99 atom % ¹³ C
427047	Ethanol-2- ¹³ C	99 atom % ¹³ C
606316	Ethanolamine-2- ¹³ C	99 atom % ¹³ C
606073	Fumaric Acid-2,3- ¹³ C ₂	99 atom % ¹³ C
297046*	D-Glucose-1- ¹³ C	99 atom % ¹³ C
310794*	D-Glucose-2- ¹³ C	99 atom % ¹³ C
453188	D-Glucose-1,2- ¹³ C ₂	99 atom % ¹³ C
453196*	D-Glucose-1,6- ¹³ C ₂	99 atom % ¹³ C
605506	D-Glucose-2,5- ¹³ C ₂	99 atom % ¹³ C
310794*	D-Glucose- ¹³ C ₆	99 atom % ¹³ C
604968	L-Glutamic Acid-1- ¹³ C	99 atom % ¹³ C
489484	Glycerol-2- ¹³ C	99 atom % ¹³ C
490423	Oleic Acid-1- ¹³ C	99 atom % ¹³ C

Cat. No	Description	Isotopic Purity
292125	Palmitic Acid-1- ¹³ C	99 atom % ¹³ C
676454*	Potassium Palmitate-1,3,5,7,9- ¹³ C ₅ 98 % CP	99 atom % ¹³ C
677175	Pyruvic-1- ¹³ C Acid (free acid)	99 atom % ¹³ C
692670	Pyruvic-2- ¹³ C Acid (free acid)	99 atom % ¹³ C
279293*	Sodium Acetate-1- ¹³ C	99 atom % ¹³ C
279315*	Sodium Acetate-2- ¹³ C	99 atom % ¹³ C
282014*	Sodium Acetate- ¹³ C ₂	99 atom % ¹³ C
606022	Sodium L-lactate-1- ¹³ C soln.	99 atom % ¹³ C
589209	Sodium L-lactate-2- ¹³ C soln.	99 atom % ¹³ C
490040	Sodium L-lactate-3- ¹³ C soln.	99 atom % ¹³ C
490709	Sodium Pyruvate-1- ¹³ C	99 atom % ¹³ C
490733	Sodium Pyruvate-3- ¹³ C	99 atom % ¹³ C
608483	Sodium Pyruvate-3- ¹³ C-3,3,3-d ₃	99 atom % ¹³ C, 50–60 atom % D
485349	Succinic Acid-1,4- ¹³ C ₂	99 atom % ¹³ C
Noble Gases	Helium-3	(99.8–99.99 atom%)
	Xenon-129	(70–99.9 atom%)
	Deuterium Oxide	(70–99.99 atom%)
	Oxygen- ¹⁷ O ₂	(10–90 atom%)
	Water- ¹⁷ O	(20–90 atom%)

*S&P tested material available

Visit sigma-aldrich.com/isotec for our extensive listing of isotopically-labeled products including D-Glucose, Organic Acids/Salts, Amino Acids and Fatty Acids

Hyperpolarization and ^{13}C , ^{15}N *In Vivo* Imaging:

Hyperpolarized ^{13}C , ^{15}N *In Vivo* Imaging:

- Real time ^{13}C , ^{15}N images using DNP or PHIP
- S/N ratio >10,000 times with ^{13}C , ^{15}N
- Selective ^{13}C , ^{15}N Metabolic Imaging

Hyperpolarization using Noble gases:

- Enhanced spatial resolution
- Increased Sensitivity
- Neuro Imaging
- Lung Imaging
- Cardiac Imaging

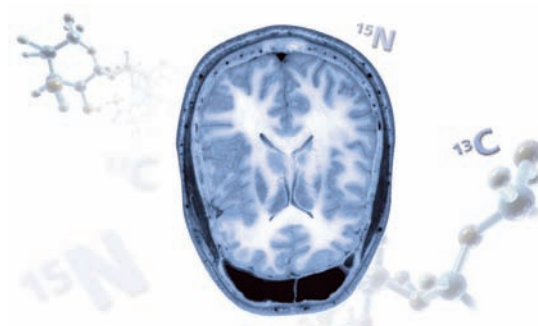
The ISOTECH[®] Advantage

Our Expert Custom Synthesis Team will help you design your molecule!

- Isotec has the most experienced group of stable isotope scientists
- Our impressive group of PhD's routinely engage in complex multi-step reactions

Our Experienced GMP Development Team can support your regulatory needs!

- Over 12 years experience in manufacturing bulk API's
- Analytical Expertise in Method Development and Validation
- Dedicated cGMP laboratories
- Ready to support customers for all phases of the pharmaceutical lifecycle



Literature of Interest

1. Towards hyperpolarized ^{13}C -succinate imaging of brain cancer. Pratip Bhattacharya, Eduard Y. Chekmenev, William H. Perman, Kent C. Harris, Alexander P. Lin, Valerie A. Norton, Chou T. Tan, Brian D. Ross, Daniel P. Weitekamp. *Magn. Reson.* (2007), 186(1): 150-55
2. Ultra-fast three dimensional imaging of hyperpolarized ^{13}C *in vivo*. Pratip Bhattacharya, Kent C. Harris, Alexander P. Lin, Mattias Mansson, Valerie A. Norton, William H. Perman, Daniel P. Weitekamp, Brian D. Ross. *MAGMA*, 2005. 18 (6): 245-56

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