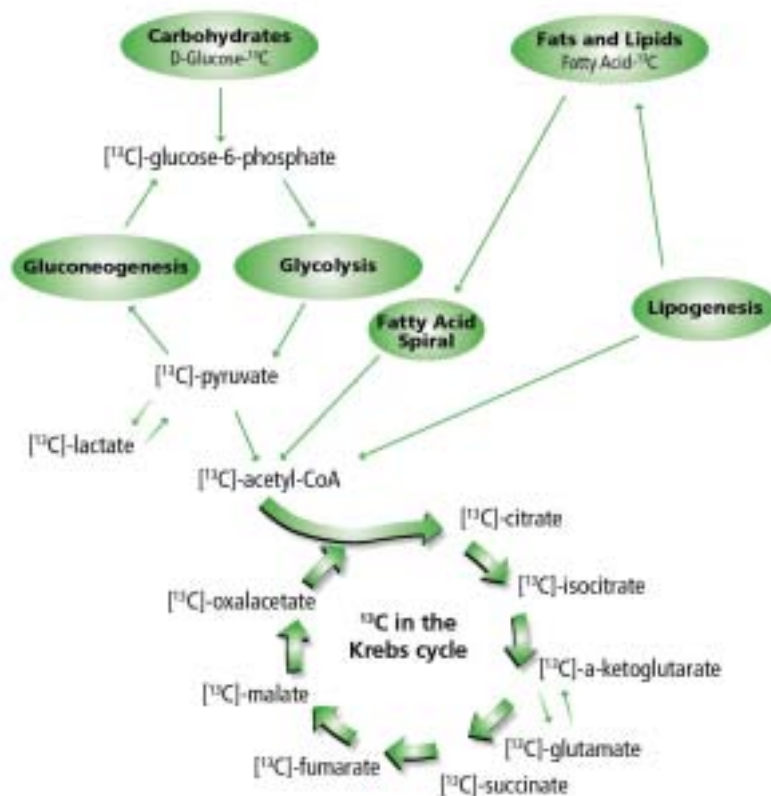


Stable Isotope Labeled D-Glucose for Metabolic Research

Glucose metabolic research continues to grow and **ISOTEC™** is committed to meeting the increasing demand. For research programs ranging from brain chemistry to diabetes to childhood obesity, Isotec produces D-Glucose with a variety of isotopic labeling patterns. Scientists can select the molecule that best meets their research needs. These products are also available with routine sterility and LAL testing of the bulk material to ensure microbial integrity.



Cat. No.	Product Description
660655	D-Glucose-1- ¹³ C, S&P tested
297046	D-Glucose-1- ¹³ C
661414	D-Glucose-6,6-d ₂ , S&P tested
282650	D-Glucose-6,6-d ₂
661422	D-Glucose-1,2- ¹³ C ₂ , S&P tested
453188	D-Glucose-1,2- ¹³ C ₂
660663	D-Glucose- ¹³ C ₆ , S&P tested
389374	D-Glucose- ¹³ C ₆

Labeled Water for Energy Expenditure Studies

Research into the relationship between energy expenditure, physical activity and body weight is of increasing importance in light of the growing epidemic of obesity and its health-related problems.¹⁻³ The doubly labeled water method remains the gold standard for measuring average energy expenditure under free-living conditions. The accurate and reliable measurements obtained using this method are a valuable research tool. Isotec can provide the materials and service required to fulfill your research needs.

- **Water-¹⁸O**, 10 atom% ¹⁸O, (Cat. No. 332089)
- **Doubly Labeled Water** with Custom Blended Isotopic Enrichments
- Enrichments ranging from 4 to 99 atom% D and 5 to 97 atom% ¹⁸O
- Need **customized packaging** for your project? Isotec can package and label our material to ease documentation and material tracking.

Visit sigma-aldrich.com/nm for our extensive listing of isotopically-labeled products including **Amino Acids** labeled with ¹³C, ¹⁵N and/or D.



Isotope-labeled Compounds for Lipid Research

ISOTEC™ is the first to offer Acyl-¹³C Coenzyme A Derivatives

Fatty acids are an important energy source in the heart, muscle and liver. Elucidating the metabolic pathways that release this energy continues to be an intense area of research.⁴⁻⁵ Fatty acids labeled with ¹³C and D are used by scientists to explore the transport and oxidation of fatty acids and determine their metabolic fate. The effects of system stresses that mimic diseased states on fatty acid metabolism are also accessible with labeled substrates.

ISOTEC™ provides a wide range of labeled compounds for lipid research:

- **Fatty acids** of various chain lengths (including **palmitic and oleic acids**)
- **Triglycerides**
- **Glycerol**

Cat. No.	Product Description	
658650	Acetyl-1,2- ¹³ C ₂	coenzyme A, Li salt
655759	Malonyl- ¹³ C ₃	coenzyme A, Li salt
658200	Palmitoyl-1- ¹³ C	coenzyme A, Li salt
655716	Palmitoyl- ¹³ C ₁₆	coenzyme A, Li salt
675776	Stearoyl- ¹³ C ₁₈	coenzyme A, Li salt
675768	Oleoyl- ¹³ C ₁₈	coenzyme A, Li salt

Interested in learning more?

Check out these books available through Sigma-Aldrich:



Stable Isotopes in Human Nutrition: Laboratory Methods and Research Applications
Cat. No. Z703818



Isotope Tracers in Metabolic Research: Principles and Practice of Kinetic Analysis
Cat. No. Z703117

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