

# NucleoSyn provides custom Stable Isotope Labeled (SIL) Compounds

NucleoSyn, leading supplier of innovative DNA & RNA related products and synthetic lipids, launches new product line & services dedicated to support your bioanalytical, Omics and ADME/DMPK projects: Stable Isotope Labeled (SIL) Compounds.

## For a variety of applications in Life Sciences

 $^2\text{H}$ 

Stable Isotope Labeled Compounds used as:

Tracers in metabolism and Omic studies using **mass spectrometry or NMR spectroscopy**

Internal standards in **quantitative bioanalysis** by LC / MS

Tools to enhance PK of drugs, drug candidates (**Deuterium medicinal chemistry**)

Tracers for assessing **absolute bioavailability** of drug candidate

**+** and more...

 $^{15}\text{N}$  $^{13}\text{C}$ 

## Custom Stable Isotope Labeling Services

• **Experience of labeling a wide range of chemotypes:** heterocycle, natural product, amino acid & peptide...

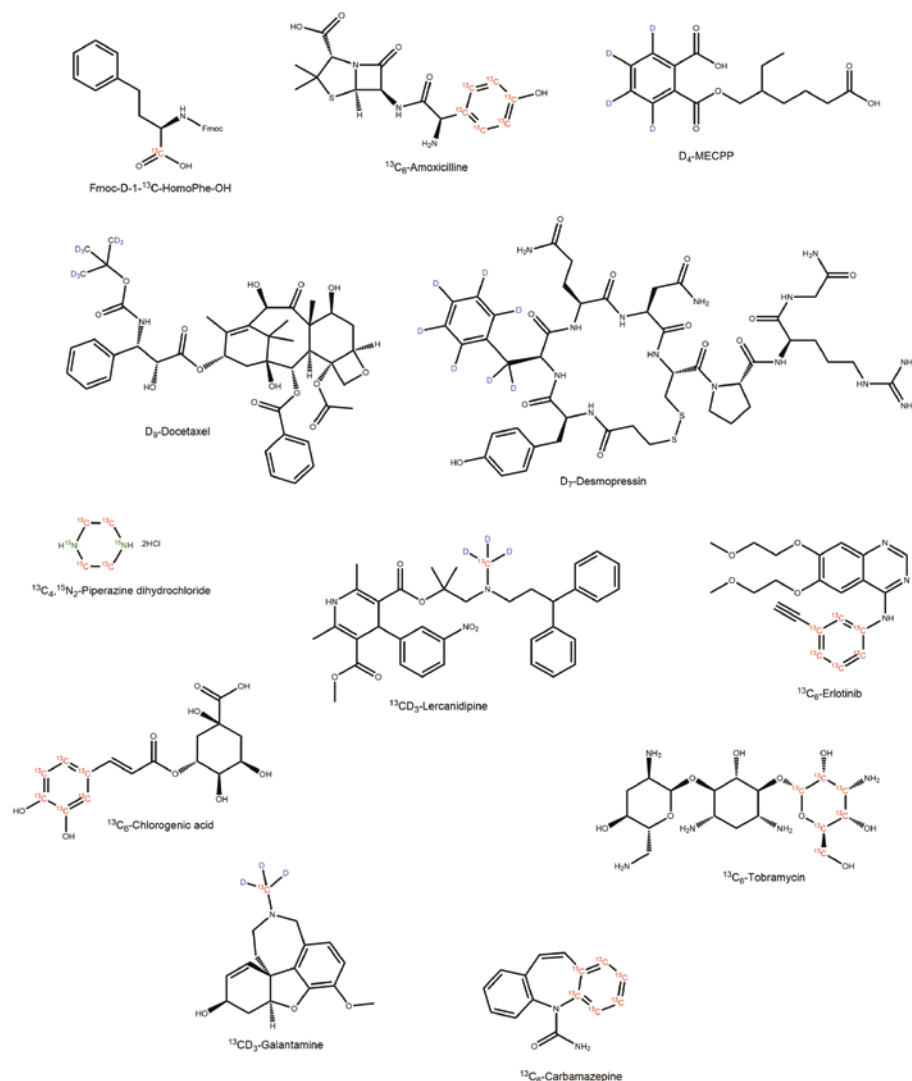
• **For stable isotope dilution assays,** preferred labeled isotopes :  $^{15}\text{N}$  &  $^{13}\text{C}$  (Golden Standard) over  $^2\text{H}$  labeling in order to ensure optimum co-elution with the unlabeled analytes and optimum isotopic purity

• **Incorporation of isotopic labels** at specific positions of the compound, including site selective and multiple site selective schemes

• **Custom  $^2\text{H}$ ,  $^{15}\text{N}$ ,  $^{13}\text{C}$ ,** building blocks and reagents synthesis

• **Either with  $^2\text{H}$ ,  $^{15}\text{N}$  or  $^{13}\text{C}$**  or a combination of them

## Stable Isotope Labeled Compounds ( $^2\text{H}$ , $^{15}\text{N}$ , $^{13}\text{C}$ ) : Few examples



## Typical Product Packaging

- Any size possible from  $\mu\text{g}$  to multigram quantities
- In pure form or standardized solution
- In low actinic amber color glassware (light sensitive product)
- Under argon (air sensitive product)

### Shipment:

- Shipped cold (e.g. dry ice shipping for temperature sensitive product if necessary)
- Worldwide delivery

 $^2\text{H}$  $^{15}\text{N}$  $^{13}\text{C}$ 

nucleoSyn

a Biosolve Group company

# Typical Certificate of Analysis (CoA) for Custom Stable Isotope Labeled Analytical Standard

CoA includes:

**Title: CoA, name**

**Identification number (lot, batch)**

**Physical description, Identification & Purity assesment**

**Purity (chemical purity %w/w)**

**Recommended storage conditions**

**Expiry / retest date**

**Intended use**

**Address of issuing body**

**Issuance date with approval signature**

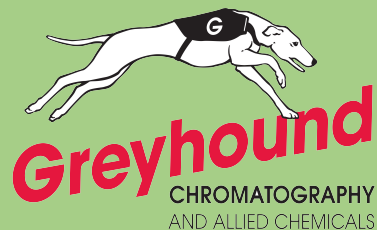
**Name of reference material in sufficient detail and structure**

**Isotopic purity / enrichment & Normalized isotopic mass distribution table**

Test	Method	Result
Appearance	Visual	Light brown solid
Identification	<sup>1</sup> H NMR	Conforms
Identification	<sup>13</sup> C NMR	Conforms
Identification	LR-MS (ESI+APCI, Negative Mode)	m/z [M-H] = 359.1 da
LC/LV/MS Purity	200-600nm / ESI+APCI Negative Mode	>99.5% / >98.5%
Chemical Purity	<sup>1</sup> H qNMR (quantitative NMR)	=96.8±0.8% w/w
Isotopic Purity	LR-MS (ESI+APCI, Negative Mode)	>99 atom % <sup>13</sup> C (0% MO)

The following table gives the normalized isotopic mass distribution, including the naturally occurring higher isotopic masses:			
m/e	Abundance	m/e	Abundance
344.00	9.4	357.05	0.1
353.05	Undetected	358.15	5.9
354.10	Undetected	359.10	100.0
355.05	Undetected	360.05	11.3
356.10	Undetected	361.05	2.8

WWW.GREYHOUNDCHROM.COM



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# Stable Isotope (<sup>2</sup>H, <sup>15</sup>N, <sup>13</sup>C) Labeled Compounds

to support projects  
dedicated to:

- Bioanalytics
- Omics research
- Molecular imaging
- Biomarker discovery

Creation: Think ad communication - © photo: Fotolia



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LABELING SERVICE

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LIFE SCIENCE  
APPLICATIONS

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PACKAGING

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