NucleoSyn provides custom

**Stable Isotope**

\(^{2}\text{H}, \, ^{15}\text{N}, \, ^{13}\text{C}\)

**Labeled Compounds**

to support projects dedicated to:

- **Bioanalytics**
- **Oomics research**
- **Molecular imaging**
- **Biomarker discovery**
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

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

Typical Product Packaging

- Any size possible from µg to multigram quantities
- In pure form or standardized solution
- In low actinic amber color glassware (light sensitive product)
- Under argon (air sensitive product)
- Shipped cold (e.g. dry ice shipping for temperature sensitive product if necessary)
- Worldwide delivery

Stable Isotope Labeled Compounds (²H, ¹⁵N, ¹³C) : Few examples

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 : ¹⁵N & ¹³C (Golden Standard) over ²H 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 ²H, ¹⁵N, ¹³C, building blocks and reagents synthesis
- Either with ²H, ¹⁵N or ¹³C or a combination of them
- 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...
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 assessment**
- **Purity** (chemical purity %w/w)
- **Recommended storage conditions**
- **Expiry / retest date**
- **Intended use**
- **Address of issuing body**
- **Issuance date with approval signature**

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