



At Frontage Europe, our highly trained and experienced Isotope Chemistry team offers broad and in-depth expertise in the custom synthesis of radiolabeled and stable labeled compounds, supporting pre-clinical and clinical drug discovery as well as agrochemical development

#### Isotope Chemistry $^{14}\text{C}$ and $^3\text{H}$ Custom Radiolabeling Service:

- Evaluation of the most suitable labeling position
- Execution of multi-step synthesis including design of new synthetic routes
- Delivery of high purity material with defined specifications
- Management and storage of compounds
- Re-purification
- Chemical identity by mass spectrometry
- Reliable worldwide tracked-shipping
- Seamless communication and periodic updates
- Release of detailed scientific report (on request)
- Customized radiosynthesis, including multiple radiolabel positions, for the assessment of metabolites and degradation products
- *In-vitro* metabolite profiling study on a custom designed test article, executed in collaboration with Metabolite Identification group



## Isotope Chemistry $^2\text{H}$ , $^{13}\text{C}$ and $^{15}\text{N}$ Custom Stable Labeling Service:

- Custom design and synthesis of Stable Label Internal Standards (SLIS) for quantitative Mass Spectroscopy
- Delivery of material with high chemical and isotopic purity
- Comprehensive analytical certification

## EQUIPMENT

### Radiochemistry laboratories:

- CEM Microwave synthesizer
- Biotage SELEKT® Flash chromatography system
- Varian™ preparative HPLCs
- Controlled storage (-20 °C and -80 °C) with real-time monitoring

### Analytical laboratories:

- PerkinElmer™ HPLCs with radiochemical and UV/VIS detectors
- Waters™ LC-MS/MS system
- Bioscan™ Radio-TLC imaging scanner
- Tri-Carb scintillation counters
- Cobra gamma-scintillation counter
- LC-HRMS (Internal)
- NMR (External)



FOR MORE INFORMATION, CONTACT US AT: [sales@frontagelab.com](mailto:sales@frontagelab.com) OR VISIT US AT: [frontagelab.com](http://frontagelab.com)

Frontage Laboratories, Inc. is a contract research organization (CRO) that provides integrated, science-driven, product development services throughout the drug discovery and development process to enable pharmaceutical and biotechnology companies to achieve their development goals. Comprehensive services include **drug metabolism and pharmacokinetics, analytical testing and formulation development, preclinical and clinical trial material manufacturing, bioanalysis, preclinical safety and toxicology assessment, early phase clinical studies**. Frontage has enabled many biotechnology companies and leading pharmaceutical companies of varying sizes to advance a myriad of molecules through development and file regulatory submissions in the United States, China, and other countries.