MAG-LAB GmbH
Established : 2021

FOUNDING TEAM

Mag. Wolfgang Friedl
CEO | 25+ years of experience in corporate law with a strong focus on biotech

Eszter Nagy, MD, PhD
President | 20+ years of experience in biotech, serial entrepreneur

Professor Robert Konrat
Scientific Advisor | international renown structural biologist at the University Vienna

Mag. Dr. Roman Lichtenecker
Head of Chemistry | Highly experienced synthetic chemist

MOLECULAR ARCHITECTURE GROUP

Protein labelling and protein NMR

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Mission: ***MAG-LAB*** *aims to leverage decades long academic expertise directly applicable to drug development, to* ***translate academic knowledge into industry applications****. Our expertise comprises the* ***production of isotope labelled proteins*** *and structure-, dynamic-, as well as interaction analysis of these biomolecules.*

MOLECULAR ARCHITECTURE GROUP

Precursors for selective labelling

- We provide **stable-isotope labelled amino acids or metabolic precursors** thereof for selective protein labelling.
- The resulting isotope patterns are **tailored to the needs of your protein NMR experiments**.

Protein expression

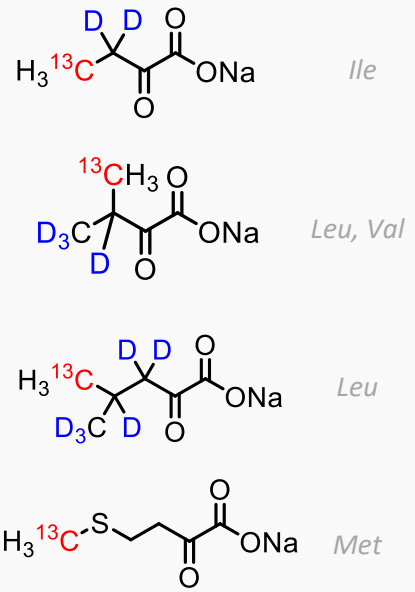
- The MAG-LAB hosts facilities to **produce the customer's target proteins** using cell-based, or cell-free overexpression systems.

NMR analysis and ligand optimization

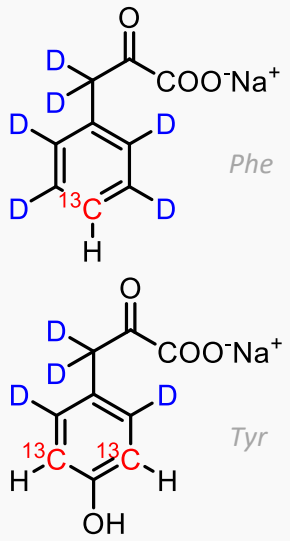
- We **address various structure-biological questions** and conduct projects from protein sample preparation to state-of-the-art NMR techniques to analyze protein-ligand interaction or elucidate folding and dynamic properties of biomolecules.
- We have the capacity to create **directed compound libraries** in order to optimize the binding properties of small molecules and **provide SAR data** based on NMR and *in-silico* approaches.

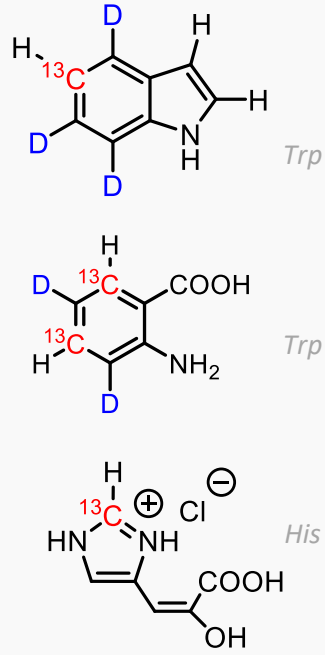
A selection of the MAG-LAB isotope labelled precursor toolkit:

Aliphatic labelling



Aromatic labelling





- **No cross-labelling** to others than the target residues shown in grey.
- Highly **economic** and compatible with routine cell-based protein overexpression.
- Compatible with **uniform nitrogen-15 labelling** using $^{15}NH_4Cl$.
- All aliphatic precursors are also available with **$^{13}CHD_2$ methyl** groups.
- Aromatic precursors feature **isolated ^{13}C-^{1}H spin systems** in a deuterated environment for **optimized spin-relaxation pathways**.
- Our toolkit includes **many more precursors** – please get in touch with us for further information.

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