

Custom Glycan Analysis Services

Tailored to your medical research or drug manufacturing's requirements



Ludger offers customised analytical services to both, **industrial and academic** institutions, such as biopharmaceutical companies, universities, and research institutes. We specialize in glycosylation analysis using **chromatographic and mass spectrometric techniques** and a combination thereof. Our laboratories are equipped with **state-of-the-art instruments** and staffed with **experienced scientists** who are dedicated to providing accurate and reliable results with a quick turnaround.

We offer a wide range of testing services including:

- **Sialic acid and monosaccharide analysis and quantitation**
- **N- and O-glycan profiling and characterisation**
- **High-throughput N-glycan screening**
- **Analysis of samples** for clinical trials and regulatory submissions
- **Method development** to test a defined characteristic of the drug product or patient samples against established acceptance criteria
- **Method validation**
- **Method transfer, training and advisory services** regarding glycan analysis in your laboratories



At our laboratory, we understand the importance of accurate and reliable testing results, and we work closely with our clients to ensure that their testing needs are met in a timely and cost-effective manner. Our team of experts is available to provide **guidance and support at every step of the testing process**, from sample collection to results interpretation.

We are confident that our customised analytical services can help your business achieve its testing objectives and **meet regulatory requirements** as we work in line with **FDA, EMA, and ICH Q6B guidelines** from a host of sample types.

If you have any questions or would like to learn more about our services, please do not hesitate to **contact us**. We look forward to hearing from you soon.

Meet us at Eurocarb 21

Ludger's Head of Development and Scientists, **Dr Daniel Spencer, Dr Jack Cheeseman,** and **Thomas Senard**, will be presenting their research at the **21st edition of Eurocarb** in Paris, France from July 09 to 13. We are excited to be part of this leading international symposium in Glycosciences at the *Maison de la Chimie*.

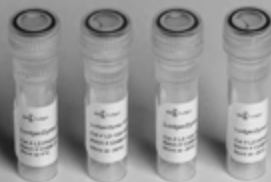
Contact us if you would like to meet us at the event or want to know more about the posters our team is presenting.

Click here for more information on Eurocarb 21.



New LudgerZyme PNGase L

For digestion of non-mammalian glycoproteins



LudgerZyme PNGase L is a recombinant glycoamidase released from *Flavobacterium akiainvivens*. This enzyme is suitable for release of a broad spectrum of N-glycans (high-mannose, hybrid and complex) from glycoproteins and glycopeptides, including those **from non-mammalian sources** such as plants, insects and parasites carrying **α 1-3 linked core fucose and xylose moieties**.

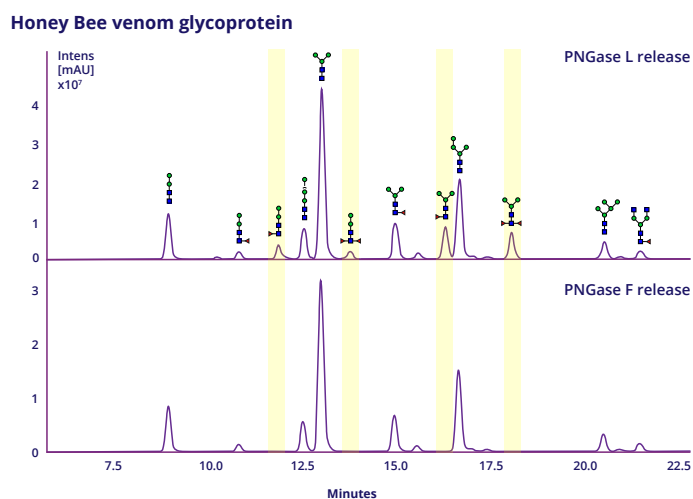


Figure 1. HILIC-UHPLC stack plot analysis of procainamide labelled N-Glycan Release from Honey Bee venom glycoprotein released with PNGase L (LZ-PNGase L-50); (top) and corresponding sample digested with PNGase F (LZ-rPNGaseF-kit) (bottom). Peaks from top chromatogram are labelled with glycan structures.

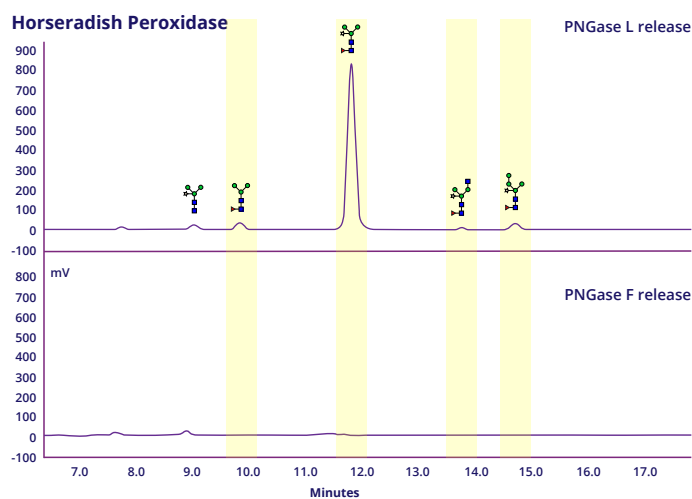


Figure 2. HILIC-UHPLC stack plot analysis of procainamide labelled N-Glycan Release from Horseradish peroxidase glycoprotein released with PNGase L (LZ-PNGase L-50); (top) and corresponding sample digested with PNGase F (LZ-rPNGaseF-kit) (bottom). Peaks from top chromatogram are labelled with glycan structures.

The PNGase L enzyme was developed and it is produced in collaboration with **Newcastle University**. In comparison with PNGase F, our **PNGase L enzyme** non-specifically releases N-glycans from broader variety of glycoprotein sources without an extensive sample preparation (see figure 1 and 2).

For enquiries or more information, please contact info@ludger.com

Ludger at PEGS Boston 2023

Hynes Convention Centre, Boston, USA- 15th to 19th May 2023

Paulina Urbanowicz (Lead Scientist at Ludger) will be attending 19th Annual PEGS conference in Boston and will present a poster titled *"Satisfying regulatory requirements using orthogonal methods for glycosylation analysis; An example with a monoclonal antibody (mAb)"*.



She will present a comprehensive strategy for the **analysis of glycosylation**, designed to satisfy the regulatory requirements outlined by EMA, FDA and ICH Q6B guidelines and **ensure the potency and clinical safety of the biopharmaceutical**. The strategy involves orthogonal techniques: total N-glycan profiling and quantitative analysis of neutral monosaccharides and sialic acids, wherein a mAb is used as a model glycoprotein and this workflow can be applied throughout a biopharmaceutical's product life cycle.

If you will also be attending and would like to meet, collaborate or view the poster during this conference, please **contact us**. For more information on PEGS BOSTON 2023, [click here](#).

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