Ludger News

January/February 2026

Unlock Deeper Insight with Ludger's N-Glycan Site Occupancy Analysis

Understanding the precise behaviour of your glycoprotein is essential for ensuring **product quality, consistency, and regulatory compliance**. Ludger's N-Glycan Site Occupancy Analysis delivers **advanced, site-level resolution** to help you achieve exactly that.

This specialised service goes beyond traditional glycoprofiling by determining which N-glycosylation sites are occupied or unoccupied and quantifying the % occupancy at each location. Using **^{18}O-labelled enzymatic deglycosylation followed by high-quality C^{18}-LC-MS/MS or MALDI-TOF-MS/MS**, our experts reveal the true glycosylation landscape of your molecule, critical for understanding biological activity, stability, and manufacturing consistency.

Because each glycoprotein behaves differently, this module is **custom-optimised** to your sample's amino acid sequence and formulation buffer. Every analysis is performed alongside Ludger's positive and negative controls and system suitability standards, ensuring accuracy and reproducibility. See the workflow below.

Proteolysis	Glycan Release	Analysis	Report Contents
Reduction/alkylation & protease digestion	PNGase F + ^{18}O Water **LZ-rPNGaseF-kit** **E-PNG01** **E-PNG01-200** **E-rPNG01**	MALDI-TOF-MS/MS or C^{18}-LC-MS/MS	1. C^{18}-LC-MS/MS or MALDI-TOF-MS/MS spectra for the ^{18}O deglycosylated peptide sample 2. C^{18}-LC-MS/MS or MALDI-TOF-MS/MS spectra for standards and controls 3. Proportion of N-glycan occupancy at each glycosylation site 4. Summary of findings
Standards & Controls (run with your samples)			
Human IgG glycoprotein standard **GCP-IGG-100U** KVANKT-A2G2S2 glycoprotein standard **BQ-GPEP-A2G2S2-10U**			

This service is ideal for:

- **Quality control** and **% occupancy comparison**
- **Batch-to-batch monitoring**
- **Biosimilarity** and **comparability studies**

Whether you are working with biopharmaceuticals, complex glycoproteins, or challenging clinical samples, Ludger's N-glycan Site Occupancy Analysis provides the clarity you need to make informed decisions and drive development forward.

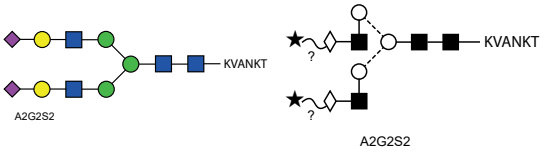
Discover deeper confidence in your glycoprofiling and **partner with Ludger today**.

Ludger's Quantitative Glycopeptide Standard

Ludger's Quantitative Glycopeptide Standard is designed to support **accurate glycan quantitation and assessment of analytical process efficiency in biopharmaceutical development**. Regulatory guidelines, including ICH Q6B and Q5E, the EMA monoclonal antibody monograph, and USP chapters 1084 and 1094, require quantitative analysis of sialic acids and monosaccharides throughout a drug's lifecycle.

To meet these requirements, Ludger has developed a purified quantitative glycopeptide standard that can be used as both an internal standard and a positive control. It supports quantitative sialic acid analysis, quantitative monosaccharide analysis, and routine glycan release and labelling experiments.

The **BioQuant Standard BQ-GPEP-A2G2S2** is a purified N-linked glycopeptide containing a di-sialylated biantennary glycan (A2G2S2) attached to the asparagine residue of the peptide sequence KVANKT. This well-characterised structure enables reliable monitoring of analytical performance.



Key benefits include use as a **system suitability standard** to demonstrate labelling efficiency, column performance, and analytical repeatability. It can be run in parallel with routine analyses as a **positive control**, supports regulatory submissions by demonstrating reproducibility, and provides quality assurance through traceability to USP references and NIST standards.

Further information on incorporating this standard into glycan analysis workflows is available on the **Ludger website**, and inquiries or quotations can be requested **via email**.

Ludger at Project INTERCEPT's First Annual Meeting

We are pleased to share that Ludger participated in the **1st Annual Meeting of Project INTERCEPT,** which took place on 11–12 December in Amsterdam, hosted by the coordinating institute Amsterdam UMC. This milestone event brought together leading partners from Europe, the United States, and South Korea, marking an important step forward for this ambitious international collaboration.

Over two intensive days, Project INTERCEPT partners came together to dive deep into the science, tackle complex challenges, and co-create innovative solutions aimed at advancing understanding and treatment strategies for **Crohn's disease**. The meeting fostered rigorous scientific discussion while encouraging open collaboration, creativity, and long-term strategic thinking as the consortium aligned on its roadmap toward 2026 and beyond.

Ludger was proud to contribute its expertise to this global initiative, engaging alongside academic, clinical, and industry partners united by a shared goal: translating cutting-edge research into meaningful impact for patients. From sparking new ideas and building practical solutions, to strengthening cross-continental partnerships, this first annual meeting laid the foundation for an exciting year ahead.

We look forward to sharing further insights as **Project INTERCEPT** continues to build momentum and deliver on its promise.

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