Ludger News

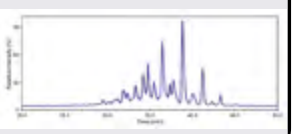
March/April 2024

Interlab Comparability Study of N-glycosylation Charaterisation Methods

Ludger collaborated with **NIBRT**, **Maynooth University** and **Leiden University** in an **interlaboratory study of three glycoanalytical techniques for profiling and characterizing the N-glycans released from EPO**: HILIC-FLD, HILIC-FLD-MS and MALDI-MS.

In the article titled ***"Erythropoietin N-glycosylation of Therapeutic Formulations Quantified and Characterized: An Interlab Comparability Study of High-Throughput Methods"***, the authors discussed the advantages and disadvantages of each technique in terms of sample preparation, measurement time, data processing, resolution, identification, and robustness.

The products and methodology used by our team are summarised in the workflow below.

Release	Clean Up	Labelling	Clean Up	HILIC-FLD
PNGaseF release kit E-PNG01	LudgerClean Protein Binding Membrane Plate LC-PBM-96	LudgerTag Procainamide Glycan Labeling Kit LT-KPROC-VP24	LudgerClean Procainamide plate LC-PROC-96	

The results showed that the three techniques had good precision and could differentiate the unique N-glycosylation profiles of the EPO preparations. Given their **differences in precision, coverage and isomeric separation capabilities**, the choice of method should be made based on the desired application as well as the characteristics of the sample used.

Click here to read the full article.

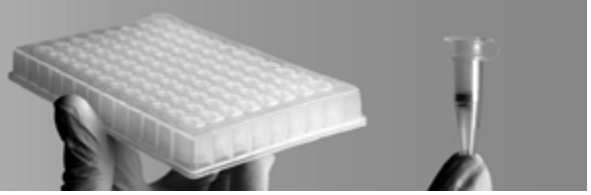
If would like to analyse a glycan sample extracted from a different source, please have a look at Ludger's comprehensive range of glycan analysis reagents and consumables.

Release	Clean Up	Labelling	Clean Up	HPLC
LZ-PNGaseL-50-KIT LZ-rPNGaseF-kit E-PNG01 E-PNG01-200 E-rPNG01	LC-EB10-A6 LC-EC50-24 LC-EC50-96 LC-PBM-96	LT-KAA-A2 LT-KAA-VP24 LT-KAB-A2 LT-KAB-VP24 LT-KAB-VP96 LT-KPROC-24 LT-KPROC-96 LT-KPROC-VP24	LC-S-A6 LC-T1-A6 LC-PROC-96	LS-N1-4.6x10 LS-N1-4.6x250 LS-N2-2.0x150 LS-N2-4.6x150 LS-C2-4.6x150 LS-C2-4.6x50 LS-C3-7.5x75

Please write to us at **info@ludger.com** if you require technical support or would like to know more about the research explained in this article.

LudgerClean™ Post-Exoglycosidase

Spin column and 96-well plate format



Protein contamination can significantly affect glycan analysis, leading to inaccurate results and compromised data. The list effects include column fouling, MS ion suppression, baseline noise, quantification errors, false glycan signals, and increasing sample reading complexity.

LudgerClean Post-Exoglycosidase technology efficiently removes exoglycosidase enzymes and other protein material. Their specialized modified polyethersulfone membrane with a molecular weight cut-off of approximately 30 kDa ensures precise separation of glycans from proteins.

They are suitable for preparing N-glycan, O-glycan and glycopeptide samples for their analysis using mass spectrometry or HPLC.

Product information: LC-EXO-96 plates: sufficient for up to 96 samples. LC-EXO-A6 spin columns: ideal for smaller batches

Use with LudgerClean Vacuum Manifold Accessories

Ludger attended the 19th Congress of ECCO

European Crohn's and Colitis Organisation

INFLAMMATORY BOWEL DISEASES
19TH CONGRESS OF ECCO

FEBRUARY 21-24, 2024
STOCKHOLM, SWEDEN

Ms Georgia Elgood-Hunt, Bioinformatician at Ludger, presented the poster titled ***"Serum N-glycan Biomarkers Predict Patient Response to Biologics for Crohn's Disease"*** at ECCO'24 in Stockholm, Sweden.

The **predictive potential of the Total Serum N-Glycome (TSNG) analysis on patient response to 4 biologics for the treatment of Crohn's Disease** (Ustekinumab, Adalimumab, Infliximab, Vedolizumab) was validated. Before treatment, patients who responded were strongly distinguished by the therapy type (0.96 AUC) through a combination of 13 significant glycan peaks with a Random Forest Classifier assignment. **See the Poster here.**

Meet us at Festival of Biologics 2024

FESTIVAL OF BIOLOGICS USA

Dr Radoslaw P. Kozak, Head of Glycoprofiling at Ludger, will be presenting the poster titled ***"Implementation of Glycan Standards into a Glycan Analysis Workflow"*** at Festival of Biologics in San Diego, California (**April 15th to 17th 2024**).

The selection of relevant glycan standards, and their integration into instrument calibration, method development, validation processes, quality control and preliminary analysis are illustrated in this poster.

Click here to see this and other posters presented by Ludger's Scientific Team at other events.

Dr Kozak will be visiting customers in **San Diego** and **San Francisco** from **April 15th to 18th**. Please write to us if you are in the area and would like to know how our Glycoprofiling Team can support your organisation's glycan analysis needs. He will be happy to meet you in person and walk you through our **Services offer**.

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