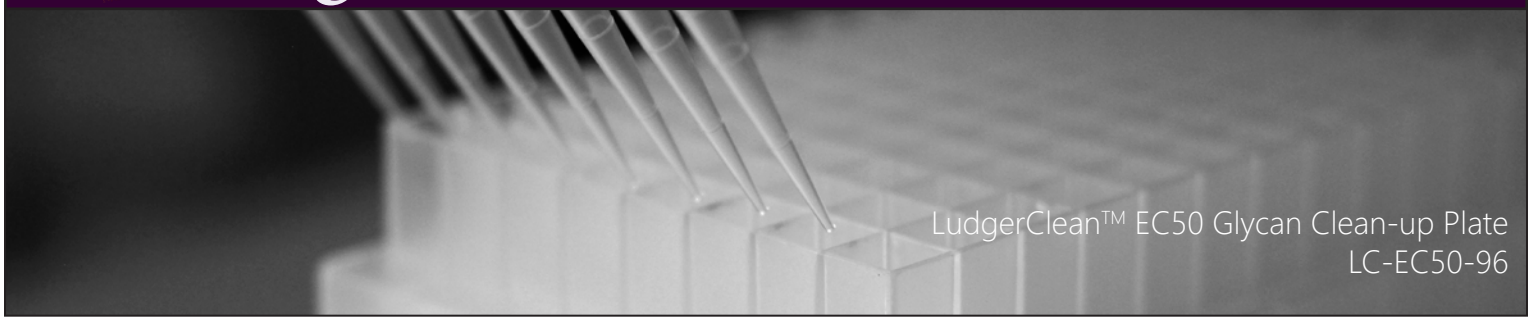
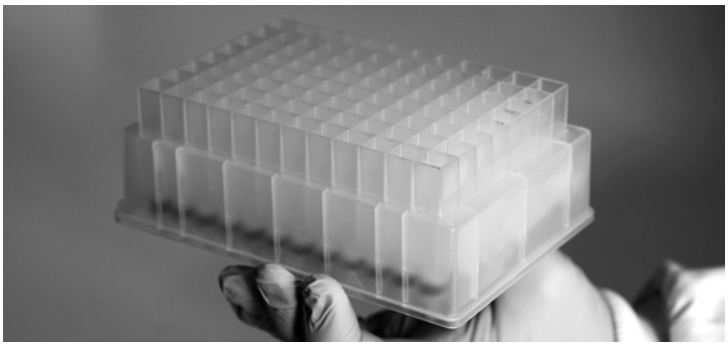
Ludger News

July/August 2021



New Product Launch: Ludger's high throughput glycan purification plate (Catalogue # LC-EC50-96)

We are excited to announce the launch of Ludger's new high throughput glycan purification plate (**catalogue no. LC-EC50-96**). The LudgerClean EC50 plate and EC50 cartridges (LC-EC50-24) have been developed as a lower cost replacement for the EB10 cartridges (LC-EB10-A6) while having equivalent efficiencies and reproducibility.



This high-throughput workflow compatible plate will allow you to purify glycans from complex mixtures including proteins, salts, and detergents.

Purification of glycans can be performed using LC-EC50-96 plate in your glycan analysis workflows as follows:

- After enzymatic or chemical release of glycans from glycoproteins.
- After exoglycosidases (enzymatic) digestion of glycans to release individual monosaccharides to confirm glycan identity and structure.
- Before and after glycan labelling using fluorescent tags such as 2-aminobenzamide acid (2-AB) and 2-aminobenzoic acid (2-AA) etc.

A wide range of glycans including N-linked and O-linked type oligosaccharides, tri-saccharides and larger structures can be purified using LC-EC50-96 plates as depicted in the workflow below and can be further analysed using orthogonal techniques.

Workflow:

To find out how to incorporate the purification of glycans in your glycan analysis workflow, please visit our feature page and view our overview presentation (which includes a step-by-step video): www.ludger.com/glycan-clean-up-ec50. For more information on validation data, please click here.

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

Glycan Charge Profile Analysis Services by Ludger

Ludger offers a wide range of glycan analysis services for identification and characterisation of glycosylation critical quality attributes (GCQAs) including the analysis of sialylation, sulphation, and phosphorylation of therapeutic glycoproteins.

Biopharmaceuticals such as Fc fusion proteins, hormones (e.g., EPO), vaccines and clotting factors often contain negatively charged glycans which impact the structure, function, and efficacy and therefore, it is a regulatory requirement to analyse the GCQA's of these drugs. For instance, sialic acids can impact biopharmaceuticals efficacy, serum half-life and immunogenicity; sulphated glycans are involved in cell adhesion; and Mannose-6-Phosphate is a key targeting signal for transport of glycoproteins to lysosomes and is present in therapeutic enzymes developed for treatment of lysosomal storage diseases.

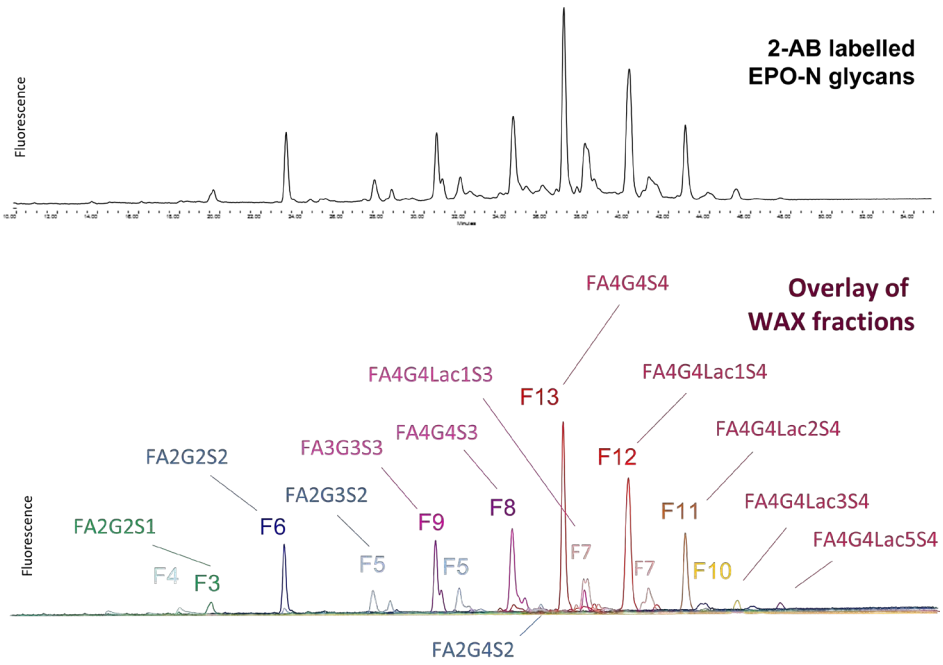
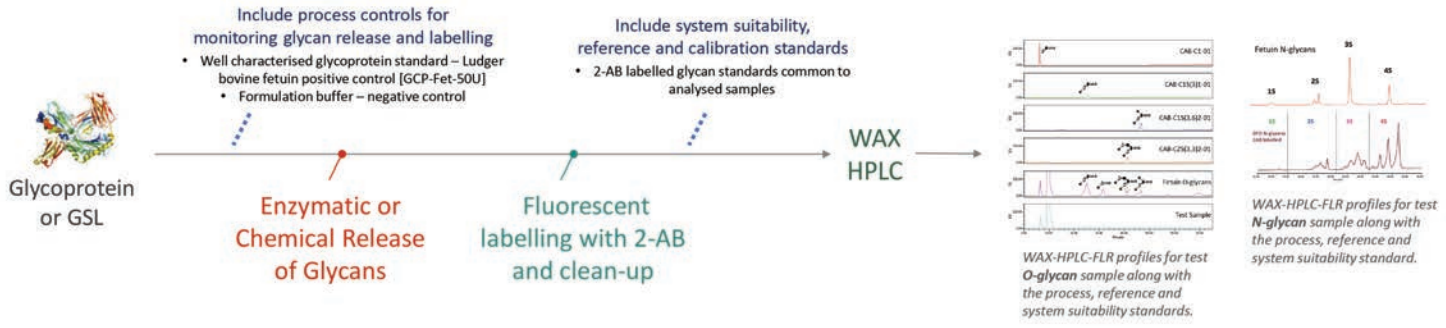


Figure 1. HILIC-UPLC profiles of: a) 2-AB labelled EPO N-glycans
b) overlay of EPO N-glycans WAX fractions

We provide Glycan Charge Profile Analysis, which employs weak anion exchange high-performance liquid chromatography (WAX-HPLC) for monitoring the glycan charge profiles of glycoprotein therapeutics (see Figure 1).

Our workflow for analysis and separation of sulphated, phosphorylated, and/or mono-, di-, tri-, and tetra-sialylated glycans is shown below:



In addition to charge(WAX) profiling, we offer HILIC profiling, Quantitative sialic acid analysis, Linkage analysis, Site occupancy analysis as well as many custom glycan analysis services to suit your needs.

To enquire regarding glycan analysis please contact rad.kozak@ludger.com or if you have any questions or to request a quotation, please contact us at info@ludger.com