Ludger LT-KAB-VP kits:
2-AB labeling kits with 2-PB reductant

## 2-AB glycan labeling in 2 hours with LT-KAB-VP kits

Ludger's 2-AB labeling kits with 2-picoline borane (2-PB) reductant offer the flexibility of labeling 24 or 96 glycan samples in only 2 hours (1 hour for the actual labeling reaction). With these kits we have replaced the sodium cyanoborohydride reductant with 2-PB which is far less toxic, giving you a safer method to perform in the lab.

**Ludger glyShape™**

**LudgerClean™ T1 Cartridges**
For post-labeling purification of fluorophore labeled glycans

▶ Click to view presentation

To further streamline your workflow, we recommend using Ludger Clean T1 cartridges to clean up the labeled samples before analysis. T1 cartridges have been developed for use on a vacuum manifold system in a microplate format. Clean up is completed within 30 min for a single sample; 2 hours for 96 samples.

For more information on our 2-AB and other labeling kits visit: www.ludger.com/glycan-labelling, and for our Clean up products (including a presentation on our T1 technology) visit: www.ludger.com/glycan-clean-up

## Assured Quality Control of Ludger Glycan standards

Ludger's wide range of glycan standards are all isolated from natural sources in our labs and with minimum purity set at 85%, as assessed by 2AB-labeled HILIC chromatography. Each standard is further characterised by the following methods:

- High Performance Anion-Exchange Chromatography with Pulsed Amperometric Detection (HPAE-PAD)
- Mass Spectrometry (MS)
- Nuclear magnetic resonance (NMR)

The Certificate of Analysis for each standard includes the % purity of the glycan batch as well as chromatograms, structural information and expiry dates. For more information, contact us at info@ludger.com

## Publication: Improved and semi-automated reductive β-elimination workflow for higher throughput protein O-glycosylation analysis.

A study by groups at Ludger and Leiden University Medical Centre as part of the GlyCoCan grant, has reported a largely automated system for high-throughput protein O-glycosylation analysis. Adapting reductive β-elimination release of O-glycans to a 96-well plate system allows the method to be performed on a liquid handling robot enabling characterization and relative quantitation of O-glycans from commercially available standards. The method, which was validated according to the ICH (Q2) R1 guidelines for the validation of analytical procedures, produced rapid and accurate data, and has the potential to be utilized for O-glycan characterization of biological samples, biopharmaceuticals as well as biomarker discovery.

This was recently published in PLOS One:

For more information on this and our other publications, please visit our Publications webpage.

# Coming Soon: LC-EC50-24 cartridges

Clean up of glycans is an essential step in sample preparation, as it removes excess, salts and detergents which could interfere with labeling. We have introduced an alternative product to our LC-EB10-A6 cartridges, called LC-EC50-24. We have tested these new cartridges for clean up of N-glycan samples before labeling and our data shows that these work as efficiently as our LC-EB10 cartridges.

The data below compares average relative % areas of IgG N-glycans from CLIBN-IgG-5U standards in PBS buffer when they are cleaned up with LudgerClean EB10 (8 replicates) and EC50 (11 replicates) cartridges before 2-AB labeling. LC-T1-A6 cartridges were used for postlabeling clean up.
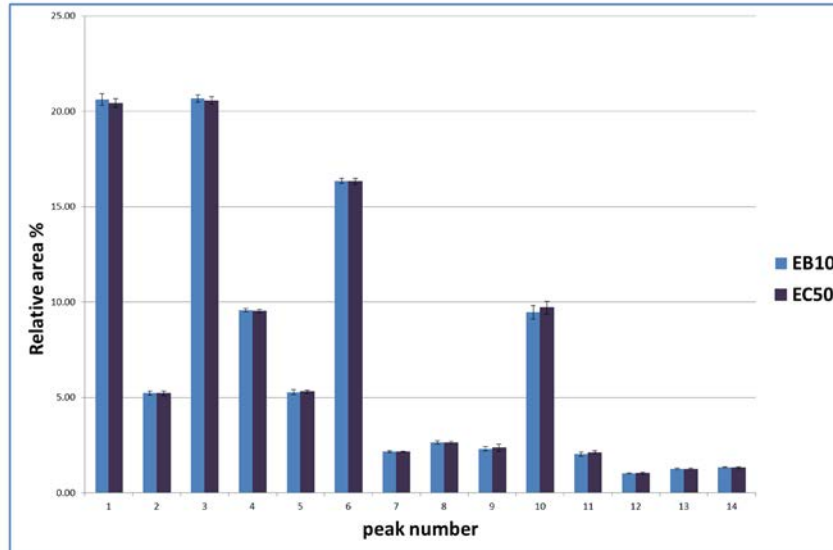


Average relative area % of the CLIBN-IgG peaks post EB10 (8 replicates)
and post EC50 (11 replicates) clean up comparison

To demonstrate the benefit of using a clean up step prior to 2-AB labeling, the figure below compares average absolute area of IgG N-glycan peaks (11 replicates) with EC50 clean up (blue) and without clean up (purple) followed by 2-AB labeling and T1 clean up:
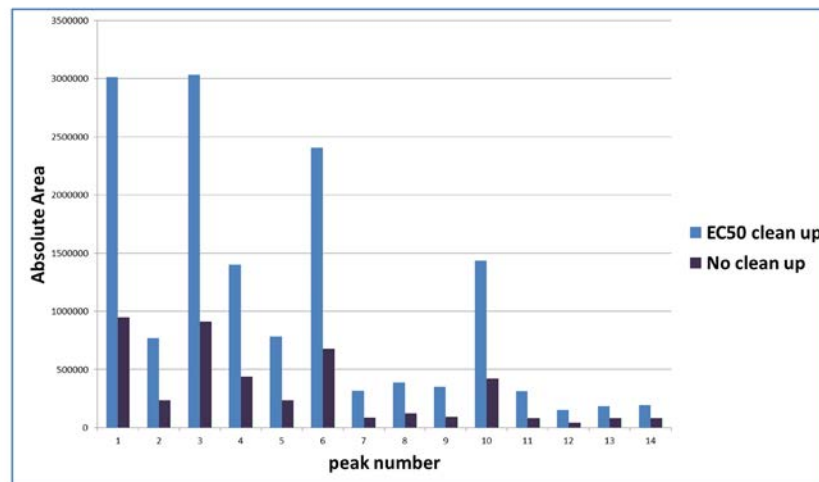


Average absolute area of the CLIBN-IgG peaks (11 replicates) with EC50 clean up (blue)
and with NO clean up (purple) followed by 2-AB labeling/T1 clean up

These cartridges come in packs of 24.  For a quotation or more information, contact: info@ludger.com



Ludger LC-EC50-24
Clean up Cartridges