

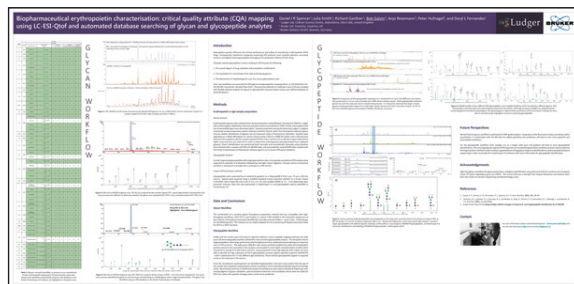
## Permethylation Kit

Our website now features a page dedicated to LudgerTag permethylation technology which is suitable for MALDI-TOF-MS analysis of glycans. The web page contains a slide presentation introducing the technology, as well as scientific posters and ordering details for products.

Click here to visit: [www.ludger.com/permethylation](http://www.ludger.com/permethylation)



## Poster at American Society for Mass Spectrometry (ASMS)



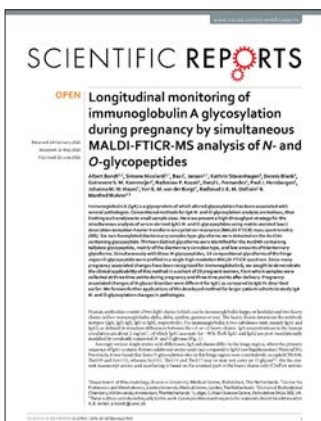
We presented the following poster in collaboration with Bruker at this year's ASMS meeting in Texas, US on June 5-9th:

Biopharmaceutical Erythropoietin Characterisation: critical quality attribute (CQA) mapping using LC-ESI-Qtof and automated database searching of glycopeptide analytes

If you would like a copy, or more information please contact: [info@ludger.com](mailto:info@ludger.com)

## Study of Immunoglobulin A glycosylation in pregnancy: results published in Nature Scientific Reports

Ludger has worked in collaboration with the Department of Rheumatology, Erasmus University Medical Center, Rotterdam, The Netherlands and Leiden University Medical Centre, The Netherlands to study IgA glycosylation in pregnancy.



Serum samples were taken at different stages of pregnancy and after delivery from a cohort of 29 women. A high-throughput workflow was adopted for the simultaneous analysis of serum-derived IgA1 *N*- and *O*-glycopeptides using matrix-assisted laser/desorption ionisation Fourier transform ion cyclotron resonance (MALDI-FTICR) mass spectrometry (MS).

Pregnancy associated changes of *N*-glycan bisection were found to be different for IgA1 compared to IgG-Fc. This method could be used for larger patient cohorts to study IgA *N*- and *O*-glycosylation changes in pathologies.

**Citation:** Bondt, A. et al. **Longitudinal monitoring of immunoglobulin A glycosylation during pregnancy by simultaneous MALDI-FTICR-MS analysis of *N*- and *O*-glycopeptides.** *Sci. Rep.* **6**, 27955;doi: 10.1038/srep27955 (2016).

For more information, please contact: [info@ludger.com](mailto:info@ludger.com)









## LudgerClean A clean up cartridges

Ludger now offers a hydrophilic interaction amide clean up cartridge, Cat # LC-A-24 which can be used for a number of applications, including clean up of:

- 2AA/or 2AB labelled N glycans
- VTag labelled glycopeptides
- APTS labelled N-glycans

Each pack of LC-As contains 24 cartridges.

We have updated our [clean up summary table](#) to include this information:

LudgerClean Products								
	LC-EB10-A6	LC-PBM-96	LC-S-A6	LC-T1-A6	LC-PROC-96	LC-CEX-A6	LC-PERMET-96	LC-A-24 *
Chemistry	Graphitised Carbon	Hydrophobic-PVDF	Hydrophilic interaction-cellulose	Hydrophilic interaction-Silica	Hydrophilic interaction-polypropylene (PP)	Cation exchange resin	Hydrophilic interaction-PP	Hydrophilic interaction-amide
Native N-glycans (e.g. PNGaseF released)	•	•					•	
Native O-glycans (e.g. chemically released)						•		
2AA/2AB labelled N- or O- glycans			•	•				N-Glycans
Procainamide labelled N-glycans			•		•			
Procainamide labelled O-glycans			•					
2AA/2AB labelled glycosphingolipid glycans			•					
Exoglycosidase-digested glycans		•						
Native glycans prior to MS	•	•						
Native glycans prior to permethylation							•	
V-Tag labelled glycopeptides								•
APTS labelled N-glycans				•				
Cartridge format	•		•	•		•		•
96 well plate format		•		•	•		•	•
Vacuum manifold compatibility		•		•	•		•	•

\* LC-A's may be applicable for 2AB/2AA labelled O-glycans, Proc labelled N- or O-glycans, 2AB/2AA GSLs and APTS labelled N-glycans, but these have not been tested in-house

