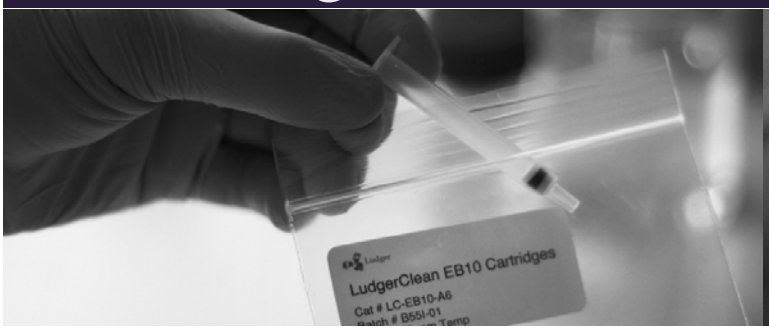
Ludger News

November/December 2015

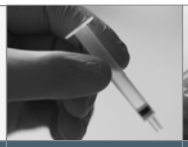


Christmas Orders and Delivery Information

Our offices will be closed between 25th December and 3rd January.
Orders received before 16th December 2015 should be processed and delivered before Christmas.
First orders to go out in 2016 will be on 5th January 2016.

Summary of Glycan Cleanup Techniques

We offer a range of LudgerClean products to suit your specific need. The table below summarises the different applications. For additional technical advice, contact info@ludger.com. Orders can be sent to sales@ludger.com

LudgerClean Products							
	LC-EB10-A6	**LC-PBM-96**	**LC-S-A6**	**LC-T1-A6**	**LC-PROC-96**	**LC-CEX-A6**	**LC-PERMET-96**
Native N-glycans (e.g. PNGaseF released)	●	●					●
Native O-glycans (e.g. chemically released)						●	
2AA/2AB labelled N- or O- 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							●
Cartridge format	●		●	●		●	
96 well plate format		●		●	●		●
Vacuum manifold compatibility		●		●	●		●

Grant News

GlyCoCan grant - Exploiting Glycosylation of Colorectal Cancer for the development of improved diagnostics and therapeutics.

We are pleased to announce that the GlyCoCan grant has now begun. This is a Marie Skłodowska-Curie Innovative Training Networks (ITN-ETN)-funded collaboration with a number of European participants.

Despite being a major worldwide cancer burden with about 1.4 million cases in 2012 and an annual mortality of approximately 700,000, current screening techniques for Colorectal cancer (CRC) are invasive or lack sensitivity and specificity. Enhancing our understanding of the structure-function relationship of glycosylation in CRC could lead to the discovery of improved diagnostic and prognostic biomarkers and pave the way for novel therapeutic targets. The GlyCoCan multi-disciplinary network will principally be a training programme with a substantial industrial focus on technology transfer and teaching of internationally adopted biopharma regulations (GMP, ISO9001, ICH guidelines). The network will address the currently unmet need for glycosylation researchers with an inter-disciplinary perspective to fully exploit the immense potential of the young scientific field of glyco-oncology and to set them on a path to successful and productive careers in academic and industrial collaborations. Recruitment will be taking place soon.

We have also participated in the fourth annual meeting of the High Glycan project (www.highglycan.eu/) and the third annual meeting of the IBD-BIOM (www.ibdbiom.eu/science/) project. Both meetings were held in Berlin in September and were attended by Paulina Urbanowicz and Daniel Spencer, who presented data on the studies undertaken at Ludger. This included analysis and stratification of patient sera using permethylation and procainamide labelling methods amongst others. Both meetings were very successful and Ludger is on track with respect to all deliverables.

Sialate O-acetyl esterase publication

A paper describing the characterization of a novel bacterial sialate-O-acetylesterase (NanS) from the oral pathogen Tannerella forsythia has been accepted for publication. The NanS enzyme has activity against Neu5,9Ac_2 and its glycolyl form and did not remove acetyl groups positioned at the 4-O position (Neu5,4Ac_2). This was the result of a collaboration between Ludger and the University of Sheffield, UK. Ludger scientists performed analysis of the biological drug human erythropoietin (EPO) which is highly glycosylated . Most of the glycans in EPO terminate in sialic acid residues which can contain two or more extra O-acetyl groups; this could have an impact on the efficacy of the drug.

Phansopa, et al. *Characterization of a Sialate O-acetyl esterase (NanS) from the oral pathogen Tannerella forsythia that enhances sialic acid release by NanH, its cognate sialidase.* Biochem J. 2015 [ahead of print]