Ludger News

September/October 2017

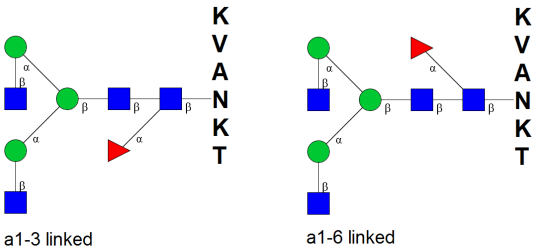
PNGaseF enzyme for more rapid glycan release

In partnership with New England Biolabs®, (NEB®), we are selling a PNGaseF enzyme kit which is suitable for releasing glycans from as many as 150 samples. The kit (Cat No. LZ-rPNGaseF-kit) contains 75,000 units of recombinant PNGase F at concentration of 500,000 units/ml.

Product code: Cat # LZ-rPNGaseF-kit

For more information visit: www.ludger.com/news/

Coming soon BioQuant core fucosylated glycopeptide standards



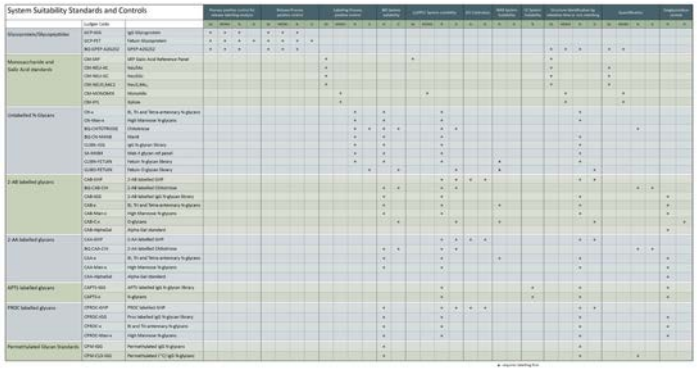
The following quantitative glycopeptide standards will be available to order from Ludger soon:
α1-3 core fucosylated A2- GPEP standard
α1-6 core fucosylated A2- GPEP standard

These BioQuant standards have specific linkages and can be used as standards/controls for: monosaccharide analysis, fucosidases or quantitative fucose tests.

Contact us for more details: info@ludger.com

System Suitability Standards at Ludger

We have produced a reference table that lists how you can use Ludger products as controls for the analysis of sialic acids, monosaccharides, N-glycans, and O-glycans.



These can be used for:
(i) Process controls for release, labelling and analysis
(ii) System suitability testing for MS, (u)HPLC and CE
(iii) GU (glucose unit) calibration for (u)HPLC
(iv) Structure identification
(v) Quantitation
(vi) Exoglycosidase sequencing (positive and negative controls)

To view the full version please visit: www.ludger.com/system-suitability-standards/

Ceramide glycanase kit

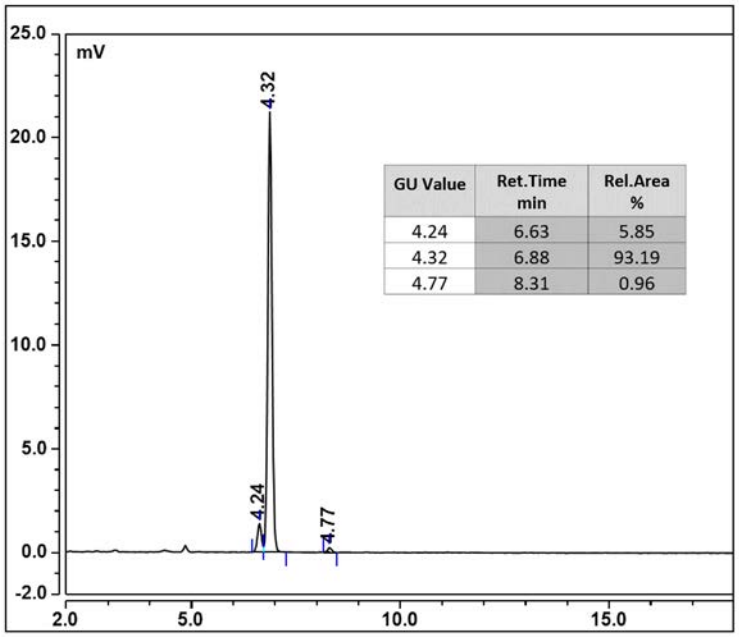


***Figure 1**: HILIC HPLC profile of 2AB labelled GLIP-GM1-01 glycan released using LZ-CER-HM-KIT (Batch: B6B7-01)*

Ceramide glycanase can be used to deglycosylate a variety of **glycosphingolipids (GSLs)** by cleaving the β-glycosyl linkage. GSLs are the most abundant glycans of the vertebrate brain. This assay is particularly useful in the study of GSL storage disease such as Gaucher's disease and neurological diseases e.g. Tay-Sachs disease. Other conditions associated with glycolipid degradation and would require GSL analysis include; GM1 gangliosidosis, Krabbe's disease, Sandhoff, Metachromatic leukodystrophy, Saposin deficiency and Farber's disease.

Ludger's ceramide glycanase kit (LZ-CER-HM-KIT) contains enzyme and buffer sufficient to deglycosylate 25 samples. The kit also contains a **Monosialoganglioside GM1 substrate** to be used as a positive control. Free GSL glycans can then be and analysed using the Ludger Tag labelling technology for efficient identification of their glycosylation patterns.

We can also **analyse GSLs** in house as part of our **glycoprofiling services**. For more information please contact us.

Ceramide Glycanase kit:
Cat. # LZ-CER-HM-KIT

Further details and a table summarising the applications, type of label, reductant method and analytical platform for each LudgerTag kit can be found on our website: www.ludger.com/glycan-labelling/

Horizon 2020 Grant to Study EPO and TNF-AB

Ludger is a member of a pan European consortium which has been awarded H2020-MSCA-ITN-2017 (Marie Skłodowska-Curie Innovative Training Networks) Grant focussing on the qualitative and quantitative analysis and purification of therapeutic proteins. This 4-year project begins in October and a PhD student (ESR) will be based at Ludger for three years.

Our PhD student will focus on the development of automatable and high throughput techniques to determine site specificity and quantification of N and O glycan profiles of EPO and TNF-AB. The project will build upon a recently developed product, VTAG, used to analyze and relatively quantify glycan types on the Fc receptor of monoclonal antibodies without releasing the glycan.

Glycans from the therapeutic proteins will be analysed using UHPLC based hydrophilic interaction chromatography, and a glycopeptide fluorophore label will be optimized for MS and CGE-LIF analysis by chemical modification. Additionally, quantitative glycopeptide standards will be prepared and finally the assay will be automated and validated according to ICHQ2(R1) guidelines.
