

Quantitative chitotriose standards

We have added to the Ludger BioQuant™ range by producing quantitative standards using chitotriose, a linear tri-N-acetylglucosamine glycan. This is available as an unlabelled glycan or labelled with 2-AB and 2-AA. The amount of chitotriose to be dispensed per vial has been determined by quantitative Nuclear Magnetic Resonance (qNMR) of the bulk chitotriose stock.

Use as an internal standard

Our unlabelled chitotriose standard (Cat: # BQ-CHITOTRIOSE-01) can be used as an internal standard to quantify glycans in your sample. To do this, add a known amount of the unlabelled chitotriose to your unlabelled glycan sample. The mixture is then fluorescently labelled, cleaned up and run on HPLC/UHPLC. The unknown quantity of the glycan can be inferred by comparison of the chitotriose and glycan peak areas (see Figure 1). The advantage of this method is that any sample loss occurring during the labelling and clean up stages will be the same for the sample and the chitotriose, thereby removing this as a source of error. The results obtained when running this method compare favourably with monosaccharide testing.

Use as external standards

The 2-AB and 2-AA labelled chitotriose standards (Cat: # BQ-CAB-CHI-01 and Cat: # BQ-CAA-CHI-01 respectively) can be used as external standards to quantify glycans; these standards can be run directly on the HPLC/UHPLC. Again, the quantity of glycans in your sample is inferred by comparison of the peak areas for chitotriose (known amount) and your sample. This method is useful when quantification of already labelled glycans is required. They are also useful when quantification of several glycan samples is required in the same run, as the labelled chitotriose standard can be used as external standard for all the samples.

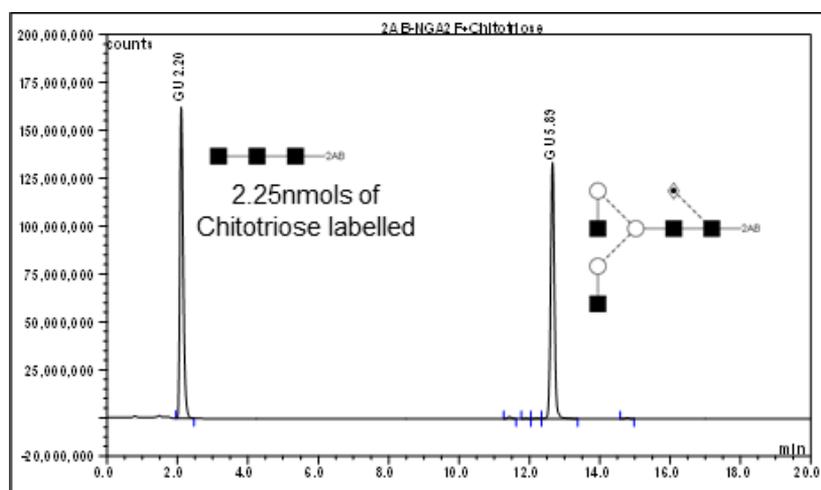


Figure 1: HILIC UHPLC column chromatogram of NGA2F (Cat# CN-NGA2F-20U) and Chitotriose glycans (Cat: # BQ-CHITOTRIOSE-01) which have been labelled with 2AB.

If you would like a quotation for either of these products, please email us at info@ludger.com