

# Rapid Glycan Analysis

## for Cell Line and Bioprocess Development

The glycan analysis assay solution from PAIA Biotech enables researchers to tightly control changes of product glycosylation through rapid glycan profile analysis and screening. This method allows researchers to successfully analyze glycan properties directly in their own cell culture labs without having to outsource to different departments or companies.



### How Does It Work?

PAIA's bead-based glycan analysis kit is comprised of a special PAIA plate (384 SBS format), and a combination of functionalized capture beads and fluorescence markers. The capture beads bind to antibodies in the sample, and labeled lectins (markers) detect the glycans present on the antibody. There is a choice of lectin markers with defined specificities available for detecting glycan properties such as core fucose, sialic acid, terminal galactose, high mannose, and more.

Users simply add their samples and provided reaction buffer to the PAIA plate. After that, the plate is placed on a shaker until binding between capture beads, analyte, and fluorescence marker is completed. Results are then read out on fluorescence readers, imagers, or microscopes.

No washing is required for this protocol, and samples can be measured directly from supernatant without dilution, purification, or lengthy sample preparation.

### Key Benefits



#### Weeks to Days

Glycan properties analyzed via mass spec and chromatography by analytics departments (internal and outsourced) can now be tested right in cell line development labs. There is no more waiting in line for analysis and results.



#### Early Selection

Cell line development teams can analyze their samples for glycan properties directly from 96 or 384 well plates. This enables early selection from hundreds of clones based on glycan properties, and avoids the disappointment of later stage testing of just 12 to 24 clones. This platform is easily automatable to help increase throughput and efficiency even more.



#### Easy & Affordable

No special instrumentation is required. Most lab pipettors, shakers, and fluorescent readers offer everything needed to successfully analyze glycan properties within a 2 hour timeframe. This is all done for a lower price per sample than traditional methods.

### Applications



# High-Throughput IgG Quantification and Titer Measurement

The IgG quantification assay solution from PAIA Biotech enables the quantification of antibodies and proteins in a high-throughput workflow. The quantification assay kits cover a wide concentration range, to allow for titer measurement at all stages of cell line and bioprocess development. The simple PAIA quantification assay workflow helps scientists easily and rapidly screen for best producing clones at very early stages in their processes.



## How Does It Work?

PAIA's bead-based quantification kit is comprised of a special PAIA plate (384 SBS format), and a combination of functionalized capture beads and fluorescence markers. The capture beads bind to antibodies in the sample, and the fluorescence marker detects the binding of the analyte to the beads.

To perform the assay, users simply add their samples and provided reaction buffer to the PAIA plate. After that, the plate is placed on a shaker until binding between capture beads, analyte, and fluorescence marker is completed. Results are then read out on fluorescence readers, imagers, or microscopes.

No washing is required for this protocol, and samples can be measured directly from supernatant without dilution or any sample preparation step. These assay types allow users to quantify IgGs, Fc fusion proteins, and Fab fragments.

## Key Benefits



### Rapid Time to Result

Time to result for the PAIA quantification assays is less than 2 hours, and can be up to 10x faster than commonly used quantification instruments or processes.



### Early Selection

These assays enable researchers to begin rapidly screening clones very early on in cell line development processes, in order to help select the best clones to move forward in the process in a shorter timeframe than traditional methods.



### Less Sample Volume Required

The PAIA quantification assays requires up to 10x less sample than standard quantification instruments use. By reducing the amount of sample used, researchers save valuable fluids for additional or repeated testing in the future.



### Easy & Affordable

No special instrumentation is required. Most lab pipettors, shakers, and fluorescent readers offer everything needed to successfully measure titer concentrations in a rapid workflow. This is all done for a lower price per sample than traditional methods.

## Applications

