



MS-based Analytics

Precise protein and glycan characterization of your biotherapeutic drug



FyoniBio is your reliable partner to elucidate the precise characteristics of your molecule according to authorities' demands. We are skilled in state-of-the-art and advanced high-resolution mass spectrometric (UPLC-MS) methods which can address most of the critical quality attributes (CQA) of drugs.

The intact mass analysis often serves as initial statement about the integrity of a molecule. We additionally provide in-depth analyses for all types of biotherapeutics. N-glycan moieties are reliably analyzed via our specialized N-glycoprofiling, employing GlycoFiler®, whereas additional posttranslational modifications are investigated by UPLC-MS peptide mapping.

With our comprehensive portfolio and competence in UPLC-MS methods, we assure a critical revision and discussion of your results.

Results are communicated as short report with no delay or as detailed scientific reports.

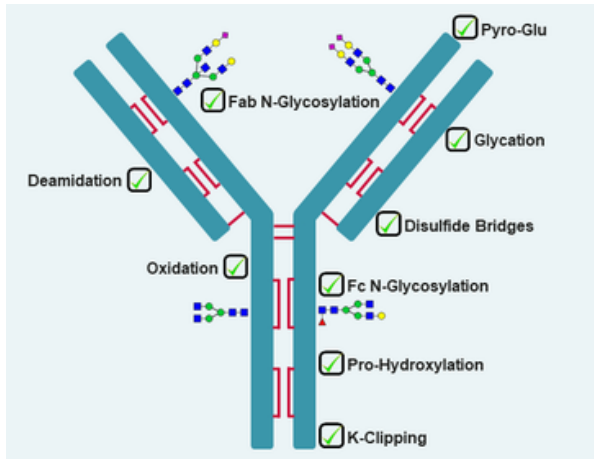
You can be assured that we have a strong weighing on transparency of methods and clear data presentation. We commit our passion to satisfy our customers expectations in adding valuable knowledge about their products.

Our Core Competencies

- Full coverage of IND/IMPd biochem. characterisation chapter
- Analysis of intact protein mass
- N-glycoprofiling
- O-glycoprofiling
- Peptide mapping and PTM analysis
- Glycopeptide profiling
- HCP identification
- Analysis of disulfide bridges
- Analysis of antibody-drug conjugates (DAR)
- Fab/Fc analysis for antibodies

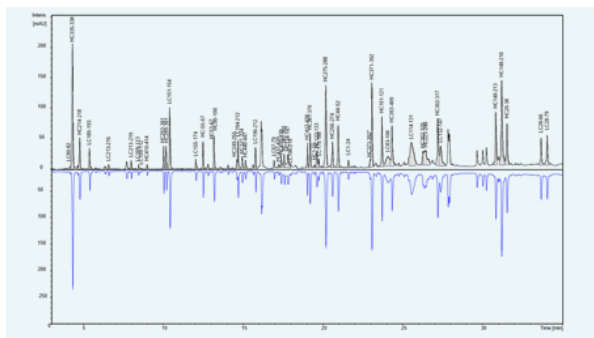
Mass Spectrometric Analysis of Proteins and PTMs

Applying high resolution UPLC-MS we are able to analyse a wide spectrum of posttranslational modifications, such as:



The described PTMs can be addressed using different top-down, middle-up and bottom-up approaches:

- Molecular mass
- Truncations and fragment analysis
- Drug-Antibody-Ratio (DAR)
- Fab/Fc analysis of antibodies including glycoforms
- Antibody heavy and light chain
- Peptide mapping
- Sequence verification
- Glycopeptide profiling
- Glycosylation site occupancy
- N-/C-terminal integrity
- N-glycoprofiling
- O-glycoprofiling



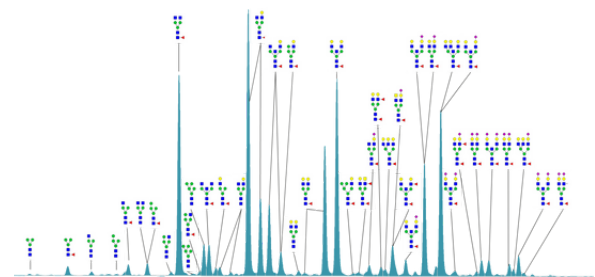
Peptide fingerprint for batch-to-batch comparison of IgG

N- and O-Glycoprofiling

- Precise quantification of glycans with high resolution HILIC-UPLC-FLR-QTOF-MS/MS
- Assessment of more than 20 N-glycan parameters
- Analysis of sialylation, fucosylation, high-mannose, α -1,3-Gal etc.
- Identification of N- and O-glycosylation sites
- Evaluation of O-glycosylation, e.g. (sialyl)Tn/TF
- 2,3- and 2,6- linked sialic acid



- Automated workflow for N-glycan profiling
- High resolution HILIC-UPLC-FLR-QTOF-MS(/MS)
- Fluorescence and mass spectrometric data hybridization
- MS and MS/MS spectra library of over 350 N-glycans
- Only small amounts of protein required (15 μ g)



GlycoFiler™ automated workflow for fluorescence-based N-glycan profiling with reliable MS structure identification

The FyoniBio team is glad to support you throughout your projects

FyoniBio offers high quality ISO-9001 compliant services. For more information please contact us.



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