Released N-Glycan & O-Glycan Workflows — Hands-on

Learn the practical end to end workflow for released N glycans and O glycans from complex samples. This module covers experimental design, enzymatic and chemical release strategies, fluorescent labeling, cleanup and LC MS profiling, together with documentation that is ready for MIRAGE and downstream quantitation.

Released N-Glycan & O-Glycan Workflows

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Session Index

Session 1

Fee: Rs 8800 Apply Now

Sample Prep & N-Glycan Release

Choosing samples and targets for released glycan analysis

purified glycoproteins **serum and plasma** **cell culture supernatants**

N glycan release strategies

PNGase F digestion **native vs denaturing conditions** **detergent and surfactant options**

Protein cleanup and recovery of released glycans

precipitation workflows **spin filters and desalting**

controlling peptide carry over

Session 2

Fee: Rs 11800 Apply Now

O-Glycan Release & Derivatization Strategies

Chemical release of O glycans

beta elimination concepts | reductive vs non reductive workflows | side reactions and artifact control

Stabilization and derivatization of sialylated glycans

esterification approaches | permethylation overview | trade offs for MS and LC

Comparing N and O released workflows in practice

workflow decision points | sample constraints | recovery vs structural detail

Session 3

Fee: Rs 14800 Apply Now

Labeling, Cleanup & LC-MS Profiling

Fluorescent and MS friendly labeling chemistries

2 AB and 2 AA labeling | procainamide and RapiFluor concepts | reaction conditions and quenching

Cleanup and enrichment of labeled glycans

SPE cartridges and HILIC tips | removing excess label | QC of recovery and reproducibility

LC and LC MS methods for released glycans

HILIC based profiling | gradient and temperature choices | basic MS acquisition parameters

Session 4

Fee: Rs 18800 Apply Now

Mini Capstone: From Raw Sample to Glycan Map

Design a released glycan workflow for a chosen sample

document steps, reagents and QC points

Link experimental steps to downstream data quality

peak shapes and resolution **signal to noise and dynamic range** **batch to batch reproducibility**

Deliverables and documentation set

workflow diagram **checklist style protocol** **MIRAGE aligned metadata draft**