Targeted Proteomics — SRM, PRM and MRM — Hands-on

Learn how to design, optimize and interpret targeted proteomics assays using SRM, PRM and MRM. This module focuses on transition selection, method setup, calibration and QC concepts that support sensitive and precise quantitation of predefined protein and peptide panels for validation and routine applications.

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Session Index

Session 1

Fee: Rs 8800 Apply Now

Targeted Proteomics Concepts & Assay Types

Why targeted proteomics vs discovery workflows

hypothesis driven quantitation **biomarker verification** **assay robustness and transfer**

SRM, PRM and MRM assay families (conceptual view)

triple quadrupole SRM/MRM **Orbitrap or TOF based PRM** **similarities and differences**

Use cases and panel types for targeted proteomics

biomarker panels **pathway or signature panels** **QC and system suitability panels**

Session 2

Fee: Rs 11800 Apply Now

SRM/MRM Method Design & Optimization (Concepts)

Peptide and transition selection principles

proteotypic peptide concepts **interference awareness** **number of transitions per peptide**

Scheduling and dwell time thinking for SRM/MRM

retention time windows **cycle time concepts** **balancing multiplexing with data quality**

Calibration curves, LOD/LOQ and linearity (theory level)

spike in standards idea **dynamic range concepts** **basic acceptance criteria thinking**

Session 3

Fee: Rs 14800 Apply Now

PRM & High-Resolution Targeted Workflows (Concepts)

PRM basics and comparison with SRM/MRM

isolation of precursor then full MS/MS **high resolution fragment readout** **flexibility for new transitions post acquisition**

Method structure and scheduling for PRM assays

inclusion lists concepts **isolation window choices** **cycle time and number of targets**

Data extraction and chromatogram review at concept level

XIC and peak integration ideas **transition ratio**

checks | basic QC plots for targeted data

Session 4

Fee: Rs 18800 Apply Now

Mini Capstone: Targeted Panel Design & Reporting

Design exercise for a small targeted proteomics panel

Theory + Practical (planning workflow)

QC and reporting structure for targeted assays (concept level)

precision and accuracy summaries | CVs, blanks and standards overview | basic report tables and plots

Deliverables: panel design sheet, method outline and QC checklist

target and peptide list | assay concept summary | QC and acceptance criteria outline