Targeted Proteomics — SRM PRM Assay Design — Hands-on

Learn how to design, optimize and interpret targeted proteomics assays using SRM and PRM. This module focuses on panel planning, transition selection, scheduling concepts, calibration and QC strategies so that you can support verification and clinical-style studies with robust, traceable protein quantification.

Targeted Proteomics — SRM PRM Assay Design

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Session Index

Session 1

Fee: Rs 8800 Apply Now

Targeted Proteomics Foundations & Use Cases

What SRM and PRM measure in targeted proteomics

monitoring specific peptides **precursor and fragment pairs** **high sensitivity quantification**

SRM vs PRM at a conceptual level

triple quadrupole vs high resolution MS2 **transition lists vs full MS2 windows** **coverage vs selectivity**

tradeoffs

Where targeted assays fit in study pipelines

verification after discovery LC–MS/MS | panel based biomarker studies | clinical and regulated lab contexts

Session 2

Fee: Rs 11800 Apply Now

SRM/PRM Panel & Transition Design

Selecting proteins, peptides and transitions conceptually

proteotypic peptide idea | avoiding PTM and SNP hotspots | fragment ion choice logic

Panel size, scheduling and dwell time thinking

time window scheduling concepts | cycle time vs number of transitions | balancing depth and precision

Stable isotope standards and internal reference ideas

use of heavy labeled peptides conceptually | normalization anchors | panel level reference strategies

Session 3

Fee: Rs 14800 Apply Now

Calibration, LLOQ & Matrix Effects

Calibration curve concepts for targeted assays

standard curve design | dynamic range and linearity | back calculation intuition

LLOQ, ULOQ, precision and accuracy at a high level

limits of quantification ideas | replicate variability reasoning | %CV and bias concepts

Matrix effects and recovery thinking

ion suppression concept | spike and recovery ideas | strategies to assess and mitigate impact

Session 4

Fee: Rs 18800 Apply Now

QC, Monitoring & Reporting for Targeted Assays

QC sample types and run order concepts

theory plus planning worksheet

Monitoring assay performance over time

QC charts and stability ideas | signal drift thinking | criteria for acceptance vs repeat

Reporting targeted assay methods and results clearly

methods and validation summaries | key tables and figures | documentation for audits and submissions