

iST- BCT BIOPHARMACEUTICAL SAMPLE PREPARATION SIMPLIFIED

Fast, reliable, reproducible sample preparation of biological fluids and therapeutic proteins e.g. mABs



THE CHALLENGE

Achieving good peptide and protein identifications as well as peptide sequence coverage for biological fluids, therapeutic proteins such as monoclonal antibodies and host cell protein analysis (HCPs).

- ✓ Samples contain high numbers of cysteines and disulfide bridges
- ✓ Artificial modifications such as oxidation or deamidation are caused by the harsher processing conditions needed in traditional methods because of the high cysteine content

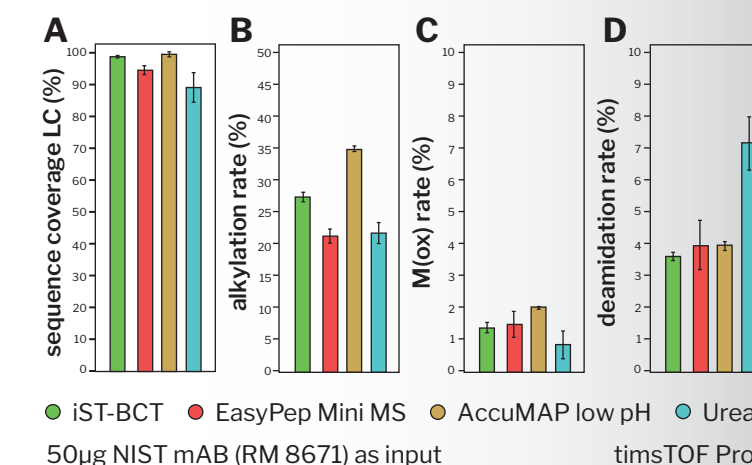
THE SOLUTION

PreOmics' iST-BCT sample preparation kit was developed specifically to maximise sequence coverage when using mass spectrometry.

- ✓ iST-BCT - optimised to improve alkylation and reduction of the cysteines
- ✓ iST-BCT - reagents carefully controlled to minimise artificial modifications

RESULTS

Ready-to-measure peptides with better peptide IDs and improved sequence coverage



FEATURES

- ✓ Ready-to-use on PreOmics' full automation platform PreON
- ✓ Adaptable to 96 well format
- ✓ Compatible with on-beads digestion for highly diluted samples
- ✓ Compatible with iST-fractionation for samples with high complexity or wide dynamic range, such as HCP analysis

WORKFLOW

Typical workflows are complex, requiring many different reagents over a two day time period. This can be replaced by a single kit containing everything needed to prepare your samples for mass spectrometry in less than 2 hours.



APPLICATIONS

- ✓ Identification of post-translational modifications and their abundance or turn-over, peptide mapping for sequence validation (critical quality attribute analysis)
- ✓ Identification and quantification of HCP for quality assurance / quality control and batch-to-batch analysis
- ✓ Analysis of plasma and serum for a wide range of experimental investigations from discovery protein interaction studies, preclinical toxicology assessment, to large clinical trial biomarker measurements.

iST-BCT VALUES

SMILE

Improved sample quality

- ✓ High reproducibility: $R^2 > 0.9$
- ✓ Working range: 1-100 μg
- ✓ Increased peptide and protein identifications

RELAX

Quicker methodology

- ✓ 1 hour hands-on time
- ✓ Single step incorporating lysis, enhanced reduction and alkylation
- ✓ All-in-one solution, all reagents provided
- ✓ Compatible with standard lab equipment

REALISE

Cleaner peptides ready for analysis

- ✓ Dual clean up step removes hydrophilic and hydrophobic contaminants
- ✓ Achieves ready-to-measure peptides
- ✓ Reduces mass spectrometry downtime
- ✓ Manual to fully automated processing options available

AUTOMATION

iST-BCT can be fully automated on PreOmics' PreON visit <https://www.preomics.com/preon>.

Application notes are available on our website for other automation platforms or our technical staff would be happy to assist you in implementing our protocols on your existing instrumentation.



FORMAT



iST-BCT 8x
P.O.00084
8 sample kit

iST-BCT 96x
P.O.00099
96 sample kit
Racked into 96 well plate, has collars for individual processing