



CXT 353 Benchtop Frozen Sample Aliquotter

Preserve sample quality and streamline sample processing

The CXT 353 Frozen Sample Aliquotter is a semi-automated benchtop instrument for the frozen aliquotting of a wide range of sample types, including tissue, feces, serum, plasma, whole blood, urine, and other biofluids.

The instrument extracts multiple frozen cores or aliquots from a frozen sample. Parent sample and aliquots are maintained below -80°C throughout the aliquotting process via LN₂ chilling, eliminating freeze-thaw cycling.

Benefits of Frozen Aliquotting

Improve Sample / Data Integrity

- Avoid analyte degradation due to freeze-thaw
- Analyze labile compounds
- Preserve parent sample for improved reproducibility (ISR) and retrospective studies

Increase Data per Sample

- Capture specific tissue sections for analysis
- Analyze nucleic acids, metabolites, and proteins

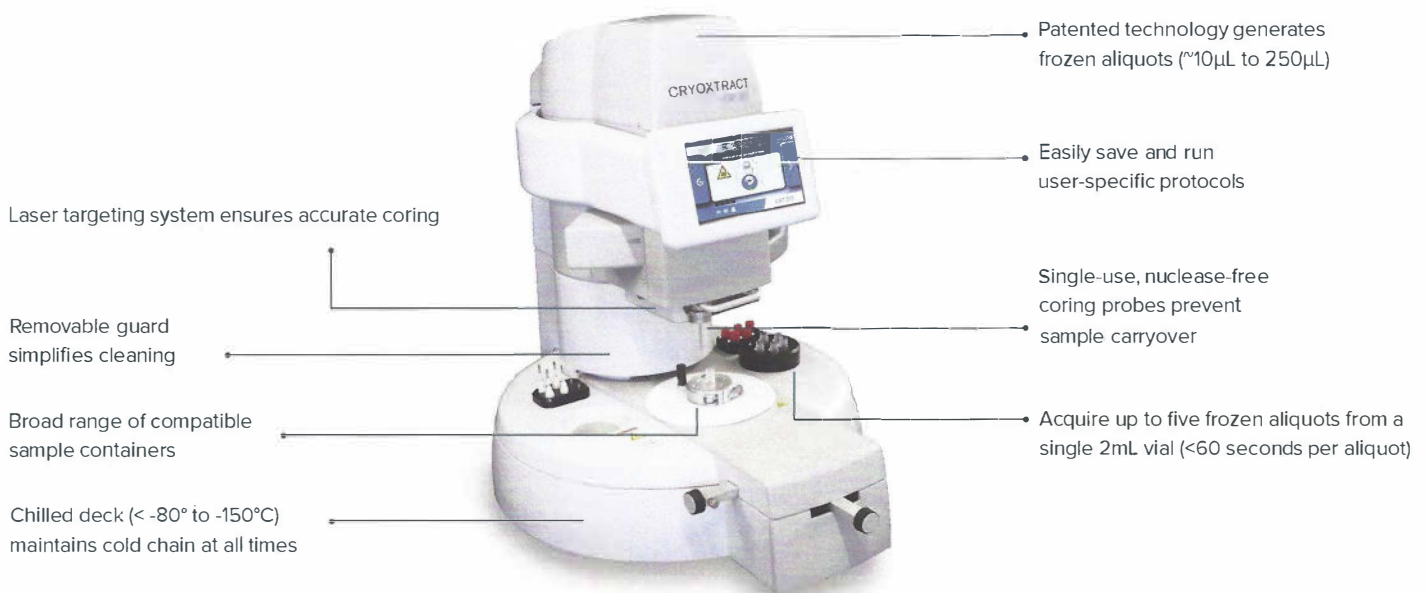
Increase Sample Usage

- Dispense small volumes without thawing
- Conserve rare and late-stage disease samples

Ensure Biosafety and Enhance Workflow

- Avoid manual slicing of frozen tissue
- Limit handling of feces
- Re-access frozen tissue and fecal samples

Improve Lab Workflow and Efficiency



Prevent degradation of labile compounds

Some biomolecules and drug compounds are inherently unstable. Frozen aliquotting stabilizes labile small molecule compounds, peptides, and proteins for bioanalysis. Uncompromised frozen samples remain available for additional testing or re-analysis.

FROZEN ALIQUOTTING IMPROVES STABILITY

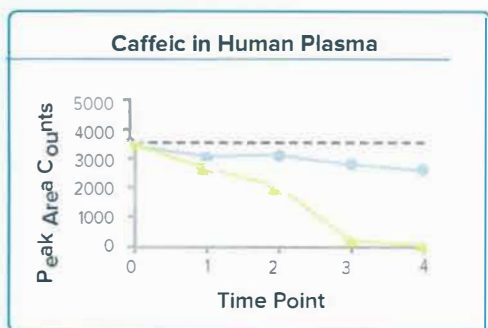


FIGURE 1: CAFFEIC ACID LEVELS IN EDTA PLASMA WERE DETERMINED BY LC-MS/MS FOLLOWING ZERO TO FOUR FREEZE-THAW CYCLES. CAFFEIC ACID SHOWED SIGNIFICANT DECLINE AFTER TWO FREEZE-THAW CYCLES AND WAS COMPLETELY UNDETECTABLE FOLLOWING THREE CYCLES.

Generate high-quality sample preparations

Frozen aliquotting enables processing of a single parent sample for multiple types of analyses. In particular, RNA quality can be highly affected by sample handling. Several laboratories have evaluated frozen aliquotting with RNA analysis. High RNA integrity was achieved across multiple sample types.

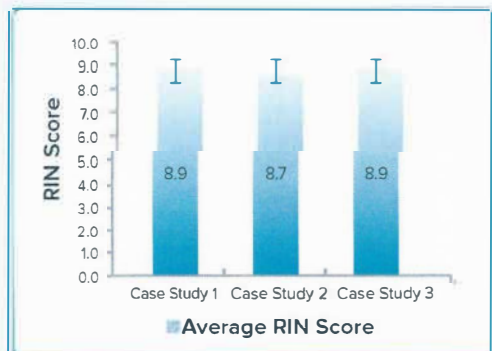


FIGURE 2: IN THREE CASE STUDIES, THE AVERAGE RIN SCORE RANGED FROM 8.7 TO 8.9. USABLE RNA SAMPLES TYPICALLY HAVE A RIN SCORE > 8.

Simplify processing

FROZEN TISSUE



- Target specific tissue sections
- Re-analyze frozen tissue
- Increase utilization of rare tissue
- Avoid manual slicing

FECAL SAMPLES



- Analyze nucleic acids and proteins
- Prep for DNA and RNA
- Re-access frozen fecal samples
- Automate sample handling
- Process raw and stabilized feces

Evaluation and collaboration

Find out if the CXT 353 will work for your application or sample type.

> Schedule your FREE evaluation.

See how frozen aliquotting can benefit your next project.

> Collaborate with us.

Call 617.962.0309 or email info@basque-engsci.com