

CRYOTRACT™

An Allied Minds Company

Volumetric Uniformity

The targeted volume feature of the CXT 750 Frozen Sample Aliquotter enables the collection of consistent frozen aliquots from samples with varying fill volumes. The instrument senses fill level and manages coring depth to generate aliquots of the desired volume. In an in-house study, aliquot consistency was shown across a volume range of 30 µL to 110 µL per aliquot.

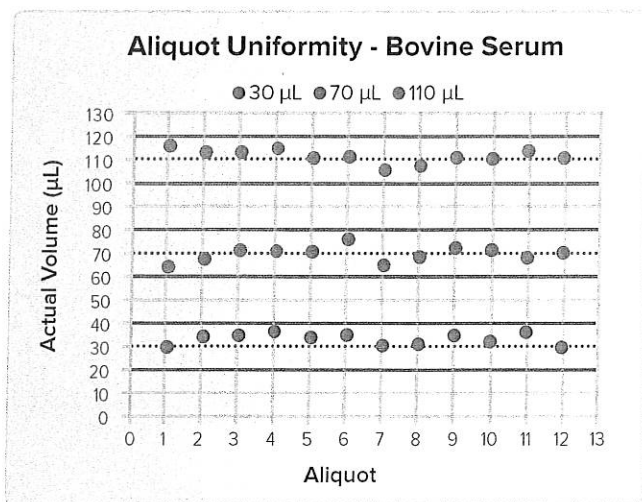


FIGURE 1: FROZEN ALIQUOTS WERE COLLECTED AT NINE DIFFERENT VOLUMES (12 ALIQUOTS EACH). RESULTS AT 30 µL, 70 µL AND 110 µL ARE SHOWN ABOVE. ACTUAL VOLUME WAS WITHIN 5 µL OF EXPECTED VOLUME FOR MOST ALIQUOTS.

Representative Cores

The Rhode Island BioBank at Brown University completed an independent evaluation to assess the degree to which frozen cores and material remaining after coring are representative of sample controls. Using human EDTA plasma the evaluation demonstrated that frozen aliquotting generates reproducible results with very low variability when analyzed for common analytes.

Diversity Study (many donors, few repeats)

	Chol	TG	Glucose	IgG	Average
Avg. Core/ Control (%)	102.2	105.6	102.0	102.3	103.0
Avg. Remainder/ Control (%)	98.9	102.6	97.4	98.8	99.4

Cores = frozen material extracted from parent vial by Frozen Aliquotter instrument. Remainder = frozen plasma left in parent vial after cores were extracted. Control = plasma conventionally prepared

SOURCE: R.I. BIOBANK, CHILDREN'S HOSPITAL BOSTON
NOTE: ALL RESULTS WERE NORMALIZED USING THE ASSAY RESULTS FROM THE CONTROLS.

Whole Blood Analysis

Analysis of whole blood eliminates separation steps that can be a source of inconsistency and enables the evaluation of potential drug compounds in the presence of blood components. In a study conducted at the Cincinnati Children's Hospital Medical Center, DNA extracted from frozen whole blood aliquots and fresh whole blood resulted in near identical gel profiles with 100% concordant DNA sequences.

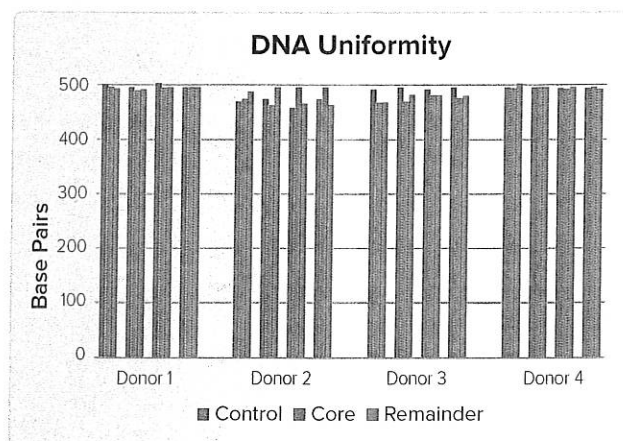


FIGURE 2: THE READ LENGTH BASED ON THE USABLE SANGER SEQUENCE ANALYSIS WAS EQUIVALENT FOR FRESH SAMPLE, FROZEN ALIQUOT AND FROZEN SAMPLE REMAINDER (AFTER ALIQUOTTING). WHEN SEQUENCING DATA WAS ALIGNED AND COMPARED USING DNASTAR SOFTWARE, NO MISMATCHES WERE DETECTED FOR ALL SAMPLE TYPES.

CXT 750 Demonstration

Want to see the CXT 750 Automated Frozen Sample Aliquotter in action?

Contact us today to schedule a free demonstration at the CryoXtract facility just north of Boston, MA.

Have an interesting project?

Collaborate with CryoXtract.

Call 339.298.5615 or 855.886.2573 (toll-free)
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