SUSAN G. KOMEN | TISSUE BANK at the IU SIMON CANCER CENTER

Standard Operating Procedure (SOP) 007V3.0

Transfer of Frozen DNA to Ambient Storage

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Materials:
DNAstable Alpha Numeric Tube Plate: Biomatrica® 99901-000.
Barcode labels: Brady® Thermatab™ Markers THT-68.
Eppendorf Reference Pipet: 10-100ul (Fisher Cat. No.S304664 or Eppendorf Biotools Cat. No.:22470205/EMD)
Pipet tips: 100ul (Fisher Cat. No.05-403-49 or Eppendorf Cat. No.022491733)
Laboratory Fume Hood:
Dry Storage Cabinet: Biomatrica® 95904-178
Desiccant Biomatrica® 16901-080
Hygrometer: VWR (Cat No. 61161-378)

Methods:

Frozen DNA to be transferred to ambient storage is withdrawn from the -80 freezer and set on the lab bench to thaw.
DNAsatble®matrix tubes in the Alpha Numeric Tube Plate are labeled as follows:
Starting in position A1 and moving from left to right through position H12, (table 1), four tubes are given the same barcode number thus providing 4 aliquots of the same sample. One Tube Plate can hold 24 DNA samples labeled in this manner.
Barcode labels are placed right under the lip at the top of the tube. If the label is placed any farther down the tube the tube will be too bulky to fit back into the plate. . If the labels are longer than the circumference of the tube, they are to be overlapped in such a way that the data matrix barcode remains completely visible.

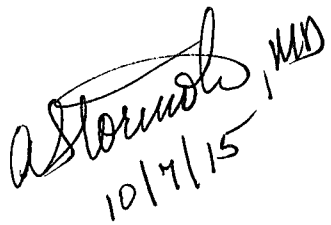

Table 1.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Sample 1	Sample 1	Sample 1	Sample 1	Sample 2	Sample 2	Sample 2	Sample 2	Sample 3	Sample 3	Sample 3	Sample 3
B	Sample 4	Sample 4	Sample 4	Sample 4								
C												
D												
E												
F												
G												
H												

DNA samples are ready to transfer once they are thawed. The caps of 4 aliquot matrix tubes are removed. and a DNA sample is mixed by pipetting up and down in the sample 6 times. A volume is determined for 4 equal aliquots by assessing the volume in the thawed sample tube. The DNAstable® matrix in a single matrix tube can hold a maximum of 50ul of solution. (Most of the samples pulled from the freezer can make 4 aliquots of 40ul each). The pipet is set at the determined volume and the DNA is transferred individually to the four matrix tubes as per Biomatrica® DNAstable® Handbook and Quick Reference Protocol (1,2).

Sample volume for each matrix tube (aliquot) is recorded. By knowing the volume transferred into each aliquot tube, (and the concentration of each sample) the ug amount of DNA in each matrix tube can be calculated.

Once a plate of 96 matrix tubes is completed, the plate of tubes is placed in a laboratory fume hood for three days. After three days, the tubes are capped and placed into a dry storage cabinet with enough desiccant to keep the humidity level in the cabinet at or below 20%.

References:

1)DNAsatble Handbook. August 2009. Biomatrica®The Biostability Company. www.biomatrica.com.

2)DNAstable® Sample Stabilization and Reciovery Quick Reference Protocol.2009. Biomatrica,Inc.

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