Tissue storage stability test



BACKGROUND INFORMATION

QPCR is an extremely sensitive molecular biological approach to determine gene expression. It is important to characterize various technical factors associated with experimental set-up and source nucleic acid to ensure peak performance across multiple use case scenarios.

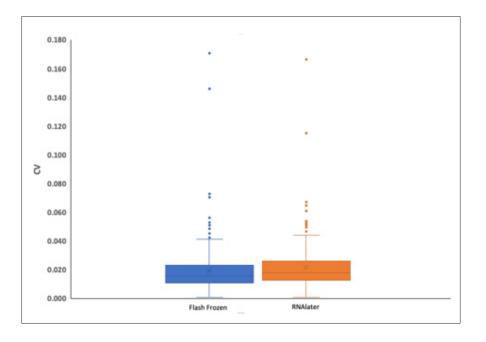
OBJECTIVE

To evaluate whether or not different storage methods of tissue samples (i.e. flash frozen vs. RNAlater) affected the EcoToxChip Ct results.

METHODS & RESULTS

Liver lobes were harvested from 3 birds. For a given bird, the right-liver lobe was immediately flash frozen, and the left-liver was stored in RNA later. RNA was extracted to create cDNA samples (n=3 from flash frozen tissues and n=3 from RNA later stored tissues) and run on JQV0.1 EcoToxChips.

Boxplot of CV variance of tissue storage method were similar between flash frozen and RNA later stored samples; both with a mean CV less than 2.5%.



TAKEAWAYS

This technical test provides confidence that end-users lacking the means to flash freeze tissues can store samples in a stabilizing agent without affecting the EcoToxChip Ct results.

Notes

To learn more about the EcoToxChip project, please read our introductory paper.