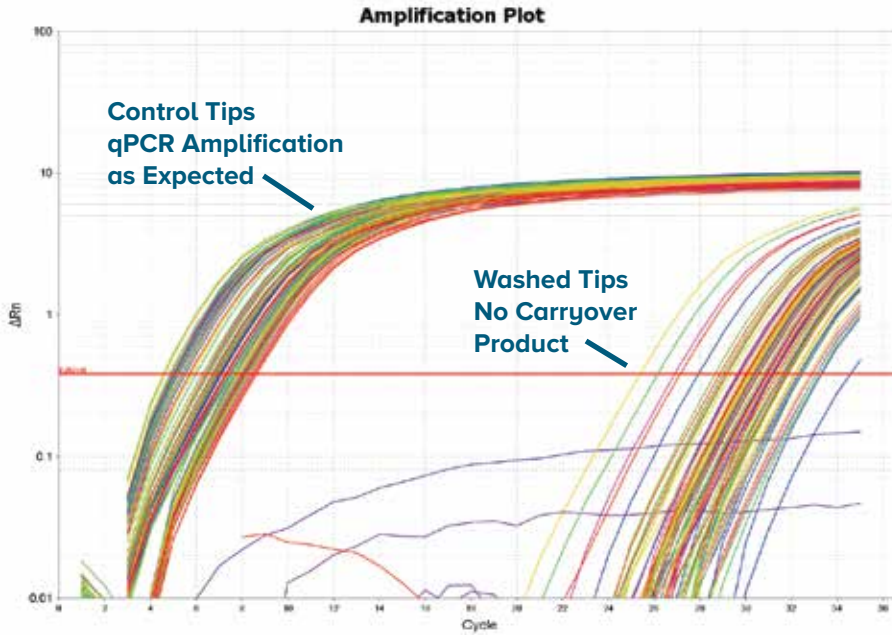


TipNovusMini Validation: NGS Library Production qPCR

Residual DNA Carryover Study

Residual sample and potential carryover is problematic for any scientific assay, impacting results. NGS library generation is a particularly sensitive assay, requiring zero carryover tolerance for pipette tip washing validation. A Next-Generation Sequencing (NGS) library carryover validation assay was designed to test carryover at a low sensitivity using qPCR to determine ability to reuse pipette tips washed using a Genova TipNovusMini pipette tip washer. Validation results were well within required assay values, supporting pipette tip wash and reuse decreasing NGS library production pipette tip spend and plastic consumption by up to 90%.



Washed Tips qPCR Procedure

This validation test method compared two racks of SBS format 384 pipette tips using qPCR to determine amount of DNA production on new non-washed and washed pipette tips. Directly following packaging removal, the control tip rack was soaked in DNA template, then soaked in buffer solution and subsequently qPCR was performed. For validation comparison, the second 384 pipette tip rack was also removed from packaging then soaked in DNA template and subsequently washed, sterilized and dried using a Genova TipNovusMini pipette tip washer. Dry, sterile pipette tips were then soaked in a buffer solution then qPCR was performed. Results showed excellent Ct values for control pipette tips and no viable amplification result for washed pipette tips, validating the method within required parameters.

GENOVA NGS WORKFLOW

Wash/Sterilize/Dry Tips

Store in Sterile Environment



Reuse and Save Money

TipNovusMini qPCR Validation Conclusions

Genova offers a fully automated pipette tip washer workflow that adheres to zero tolerance NGS DNA library production requirements. Using Genova's proven wash technology, NGS laboratories can now decrease their pipette tip spend and plastic waste, quickly generating a positive return on investment (ROI) for both 384 and 96 tip racks.