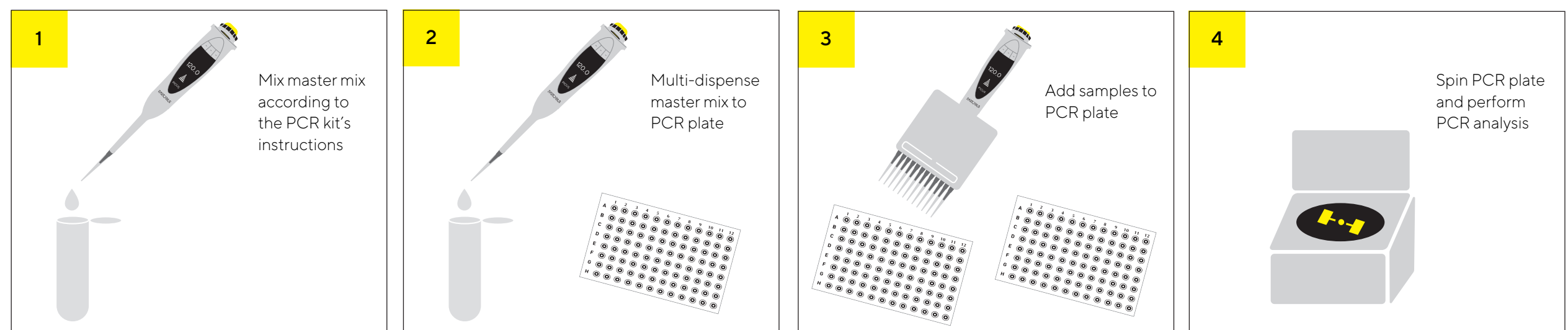


Optimize Your RT-PCR Sample Preparation

Use less time and fewer tips, while minimizing variance

Protocols that require repetitive pipetting in multi-well plates, such as reverse transcriptase PCR (RT-PCR) sample preparation, are an ideal candidate for the time-saving and accuracy benefits offered by electronic pipettes. Picus® electronic pipettes offer ergonomic benefits and use a plate tracker function to help avoid user error, leading to reduced variance in PCR experiments. Optimize your 96-well plate (96WP) and 384-well plate (384WP) preparation workflows by using electronic multi-dispensing pipettes instead of a mechanical pipette.

96WP Sample Preparation

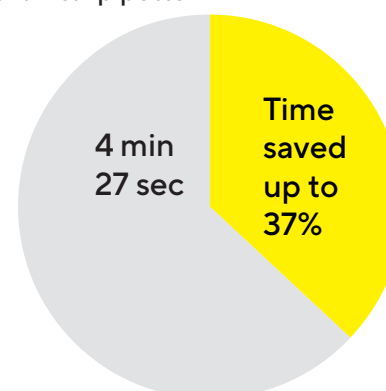


Save up to 37% of sample preparation time by multi-dispensing with a single channel electronic pipette compared to using a mechanical pipette.

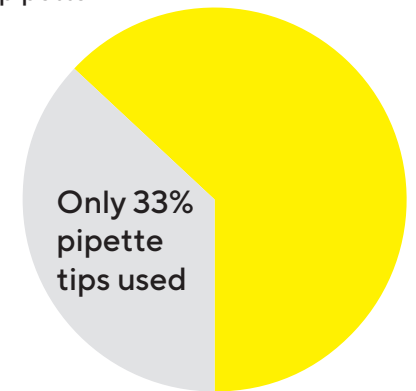
Multi-dispensing both the master mix and samples with a multichannel electronic pipette saves up to 40% of sample preparation time. You also use 33% of the pipette tips by multi-dispensing sample triplicates.

The reported time and tip savings were achieved in a workflow where samples were dispensed in triplicate from a 96WP using multi-dispensing.

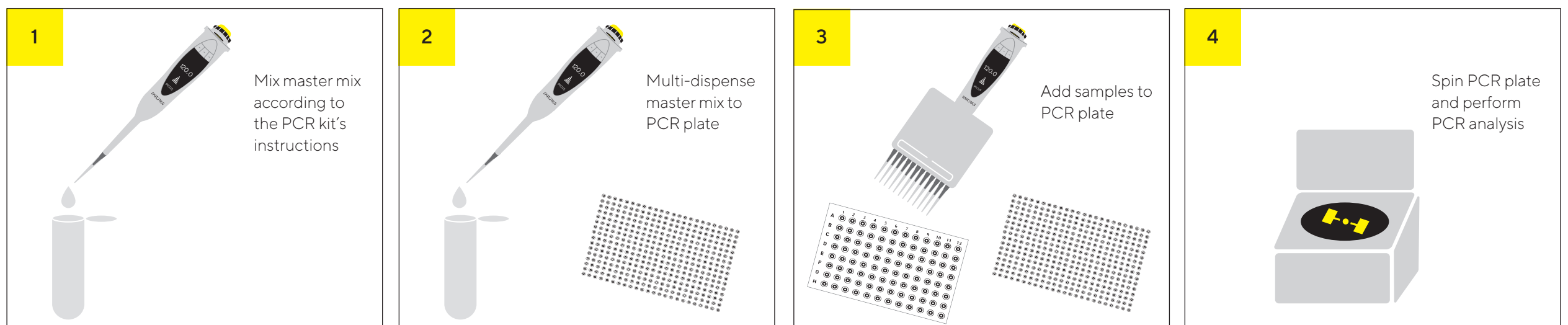
Sample prep time compared to using a mechanical pipette



Tip usage compared to using a mechanical pipette



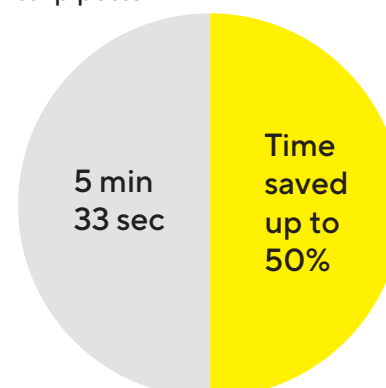
384WP Sample Preparation



Save up to 50% of sample preparation time by multi-dispensing the master mix into a 384-well plate and multi-dispensing the triplicate samples.

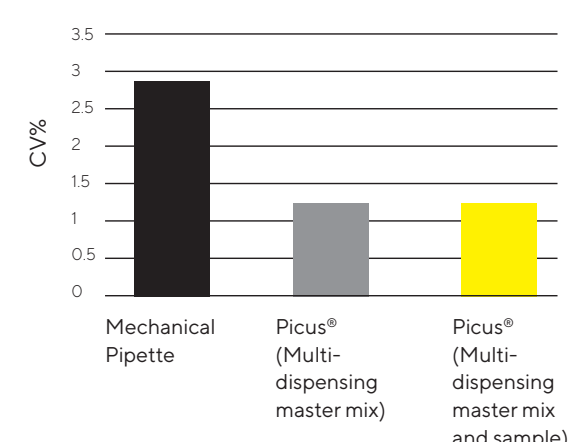
The reported time savings were achieved in a workflow where the master mix was dispensed from a reagent reservoir and samples were dispensed in triplicate from a 96WP using multi-dispensing.

Sample prep time compared to using a mechanical pipette

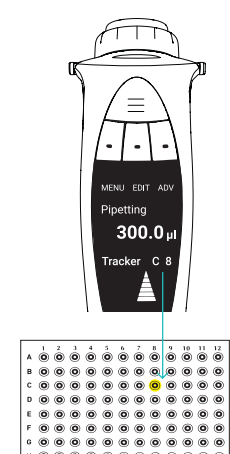


Minimize Experimental Variation

Reduce variance in downstream PCR experiments by multi-dispensing the master mix with an electronic pipette. Multi-dispensing the samples (the technical replicates) further reduces variance between sample replicates.



The plate tracker feature helps users avoid pipetting into the wrong well of a 96WP and 384WP.



Helpful hints when planning your PCR experiment:

- Prepare an additional 10 % volume of the master mix in order to balance out the losses during pipetting.
- Use a reagent reservoir with low dead volume if using a multichannel pipette to dispense the master mix.
- Use sterilized, Safetyspace® filter tips that are free of DNase, RNase, human DNA, and PCR inhibitor.
- Use the reverse or multi-dispensing mode when pipetting master mix or small volumes.
- Use the reverse- or multi-dispensing modes when pipetting master mix or small volumes.
- Thoroughly mix the samples, controls and master mix by either pipetting, or vortexing after sealing the plate. The mixing feature on the Picus® pipette automates mixing (less thumb strain) and improves pipetting consistency across the lab.
- Close the PCR plate with optical adhesive film or the PCR reaction tubes with appropriate lids.
- Spin the plate or tubes in a centrifuge (1,000 x g, 30 s).
- Use a centrifuge rotor that is compatible with your plates: Sartorius Centrisart® G-16C and Centrisart® G-26C