Certificate of Purity

PCR ready

Sartorius pipette tips have been tested by real-time quantitative PCR amplification. For tips to be certified as PCR-inhibitor free, threshold cycle (Ct) value difference compared to the positive control should not exceed ±2 cycles.

PCR inhibitor test

To test for PCR inhibition, 15 pipette tips were rinsed sequentially in nuclease-free water using the nominal volume to prepare test samples. PCR Master mix for positive controls and test samples was prepared using Maxima SYBR Green qPCR Master mix, primers for *E. coli* uidA gene, *E. coli* genomic DNA and nuclease-free water. The primers amplify a 147 bp segment of the uidA gene in *E. coli*. 10 µl of nuclease-free water (control) or test sample was added to 15µl of the PCR mastermix containing *E. coli* genomic DNA. qPCR was performed for 40 cycles. SYBR green fluorescence emission was quantified in controls and test samples. For pipette tips to be certified as PCR-inhibitor free, Ct values of test samples should not exceed ±2 cycles compared with positive controls (Figure 1).

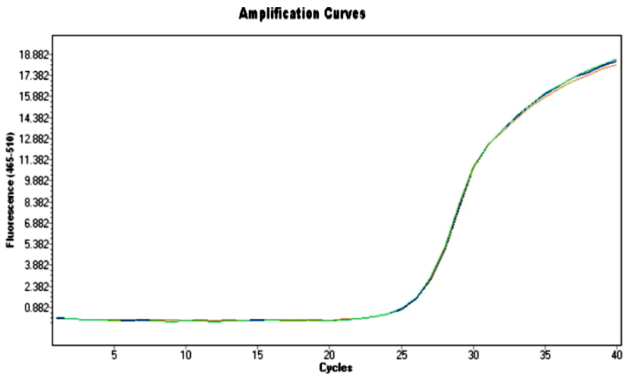

Figure 1. qPCR amplification curves for positive control and test samples. The figure shows curves for 1000 copies of the *E. coli* uidA gene for positive control (blue) and test samples of Sartorius SafetySpace filter tips (orange) and Sartorius Low Retention filter tips (green). Test samples amplified the target similarly to control, with Ct values within +/-2 range.

Due the examination performed examination it is shown that the Sartorius Pipette Tips are ready for PCR applications.

Signed: _____ Date: 11. July. 2018

Full Name: Seppo Riikonen
Title: Director, Quality & Process Development

Sartorius Biohit Liquid Handling Oy, Head Office: Laippatie 1, 00880 HELSINKI, FINLAND, Tel: +358 9 755 951,
Fax: +358 9 755 95 292, Business ID: FI2441885-8. Internet site: www.sartorius.com, Contact us: **lhinfo.finland@sartorius.com**