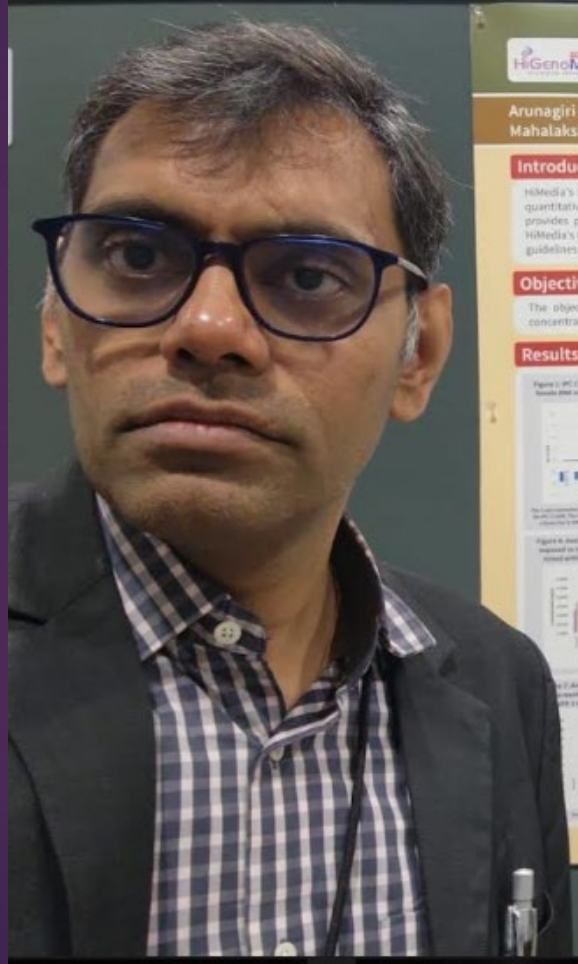


Technical Poster No. 28



Study of PCR inhibitors on HiMedia's Insta Q96®-6.0 Real-Time PCR System for Forensic Applications

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Introduction

HiMedia's Insta Q96®-6.0 Real-Time PCR system is an open, exclusive system for forensic applications, enabling real-time quantitative PCR for amplification of short tandem repeats (STR) and downstream analysis. This six-color optical filter set provides precise and accurate DNA quantification, allowing users to select reagents and test kits without calibration. HiMedia's Insta Q96®-6.0 Real-Time PCR system requires checking amplification against PCR inhibitors, following SWGDAM's guidelines for optimal performance.

Objective

The objective of this study is to check the efficiency of HiMedia's InstaQ96®-6.0 Real-Time PCR System at different concentrations of humic acid and heme.

Results

Materials and Methods

Conclusion

- The internal positive control (IPC)™-HRM assay demonstrated to be the best choice.
- IPC™ assay for heme and concentration of 0.01 ng, 0.02 ng, and 0.05 ng was found to be the best choice.
- HiMedia's Insta Q96®-6.0 Real-Time PCR System showed high detection of 3.0 ng to 100 ng of human DNA.
- The results demonstrate that HiMedia's Insta Q96®-6.0 Real-Time PCR System is capable of amplifying DNA at different concentrations of PCR inhibitors and that the system is suitable for use within a forensic laboratory.

References

- SWGDAM. Guidelines for forensic DNA quantification. 2011.
- SWGDAM. Guidelines for forensic DNA quantification. 2011.
- SWGDAM. Guidelines for forensic DNA quantification. 2011.
- SWGDAM. Guidelines for forensic DNA quantification. 2011.