DNA isolation is based on the interaction between the ligand (i.e., 96 Channel Aspirator): The automation protocol was carried out as described in Figure 4. The 96 Channel Aspirator was employed in the aspiration steps to minimize the total duration of the isolation process.

- Amplification: PCR setup was performed using the isolated gDNA for amplification of β-actin. Thermocycling was carried out off the deck, using a MCycler Thermal Cycler (BioRad Labs, Canada).
- QC: The quality of isolated gDNA, in terms of purity and recovery, was then analyzed using agarose gel electrophoresis (Figures 6 A & 7) and Agilent® (Figure 8) using a Bio-Tek HT Multi-Mode Microplate Reader (BioTek, Winoski, VT, USA).

**V. Results & Discussion**

The data obtained indicates consistent and efficient liquid handling in the isolation process from the VERSA Workstation which maximizes the DNA recovery as well as the uniformity of the DNA quality from the samples.

High molecular weight gDNA migrated close to 28S standard molecular hyper DNA ladder, and smearing of gDNA in the lanes of the agarose gel was not detected with ethidium bromide staining (Figure 6). DNA bands were also equal in their brightness indicating consistency and reproducibility in liquid handling (Figure 6). This was further supported by Agilent® readings giving consistent sample concentrations among different samples in the range of 10.0-15.0 ng/μL, which is acceptable for downstream applications.

- Abvmax values were between 1.80-1.31 indicating that the isolated DNA was highly pure with insignificant presence of RNA and protein (Figure 7). Low variation in CV% among these values also suggests that all the blood samples were handled with uniformity during the automated process. Additionally, gDNA was not detected in either wash or second elution according to the readducts of Abvmax.

**VI. Conclusion**

The VERSA Workstation is a cost-effective solution for efficient and reproducible automated isolation of high quality gDNA that is characterized by high molecular weight, high yield and suitability for downstream PCR applications as well as any other applications that require high quality gDNA.

**VII. Acknowledgements**

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**VIII. References**