

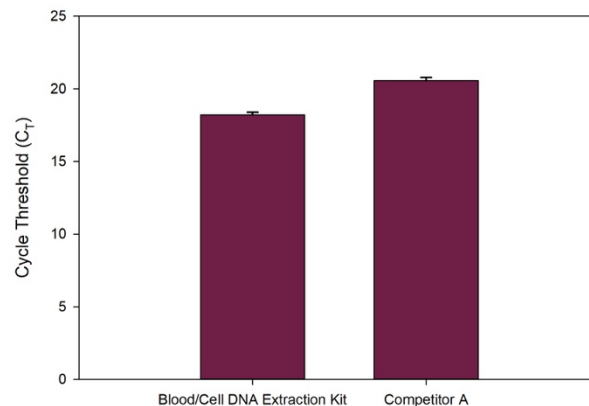
# Blood/Cell DNA Extraction

Magnetic Bead-Based DNA Isolation from Blood and Cell Samples

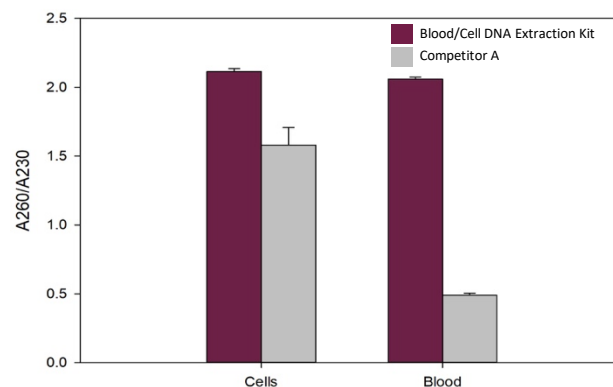
The **Galenvs Blood/Cell DNA Extraction kit** offers a rapid and efficient method of nucleic acid isolation from whole blood samples, as well as cell suspensions. Extraction of DNA is achieved through single-step magnetic bead-based lysis and capture of DNA from cells in blood, tissue or cell culture samples. The Galenvs Blood/Cell DNA Extraction kit enables highly efficient capture/elution of nucleic acids yielding purified solutions with minimal protein contamination for downstream applications such as PCR and sequencing. Functionalized magnetic beads are at the core of the Galenvs Blood/Cell DNA Extraction kit, which contains optimized buffers for blood/cell lysis & DNA binding, washing and elution.

The Galenvs Blood/Cell DNA Extraction kit alleviates the need for separate lysis and binding, heating, or centrifugation steps. Furthermore, the purified sample can be **concentrated in volumes can be as low as 50 uL**, in contrast to column-based kits which often necessitate larger elution volumes. Galenvs Blood/Cell DNA Extraction kit displays superior performance in comparison to leading commercially available column-based kits. As shown in Figure 1, **higher quantity of DNA was extracted from cell suspension** using the Galenvs Blood/Cell DNA Extraction kit, resulting in a lower CT value for GAPDH gene.

The Galenvs Blood/Cell DNA Extraction kit also provides a cleaner, less contaminated eluted DNA sample using a 100 uL whole blood sample (diluted to 200 uL with PBS). As demonstrated in Figure 2, **A260/A230 ratios obtained using spectrophotometry showed very pure DNA elute** (ratio between 1.8-2.0) using the Galenvs Blood/Cell DNA Extraction kit. This is in contrast to the column-based competitor, giving a ratio <1.0 for whole blood sample and <1.6 for cell suspensions.



**Figure 1** – qPCR analysis of DNA extracted from  $10^6$  cell suspension. A higher quantity of DNA was recovered from the same sample using Galenvs Blood/Cell Extraction kit, resulting in a lower CT value for GAPDH.



**Figure 2** – A260/A230 spectrophotometric ratios for DNA extracted from whole blood and cell suspensions using the Galenvs Blood/Cell DNA Extraction kit compared with column-based competitor. Ratios obtained with Galenvs kit were more pure and contained less contaminants.

## Superior Performance:

Rapid • Cost-Effective • High Purity • Low Elution Volumes • Efficient • Customizable