

Forensic sample processing - gDNA extraction and analysis solutions

Forensic samples are one of the most complicated and challenging samples in laboratory routine. Wide range of different starting materials, different inhibitors and very often a limited material amount is one of the most common issues in routine work. Processing of such samples might be challenging not only for young technicians but sometimes also for experienced professionals.

Precision, knowledges and a time-consuming labor work should be invested in order to obtain precious pico-grams of gDNA to be able to identify and prove affiliation depending on the task.

Automated nucleic acid extraction system could help a lot in cases where every picogram counts – **BioMagPure 12**.

The **BioMagPure 12** consists of compact bench-top robotic workstation for automated nucleic acid purification. Usage of pre-filled reagent cartridges and disposable consumables enable a true walk-away automation and high quality nucleic acid extraction solution. Proven magnetic separation technology makes purification efficient, easy to use, reliable, safe and cost effective.

BioMagPure 12 has an ingeniously designed polygonal reaction chamber with patented parts that ensure high efficiencies of lysis and elution through large contact area of magnet and heating element allowing to maximize magnetic bead recovery, minimize the residues of magnetic beads and alcohols in the final elute product. Specific formation of reaction chamber ensures unrivaled mixing ability and exclude conventional mixing by tip or pipetting thus eliminates cross-contamination possibility. Reagent kits contains everything for extraction procedure performance including all necessary plastics, pre-filled reagent cartridges, incubation buffers and solutions for sample pre-treatment (if needed). With the flexibility of processing 1-12 samples per run, the BioMagPure 12 is tailor-made to fit as a main device for complicated samples or a back-up device in every forensic lab.

When working with pico-grams of extracted DNA, of course, the next question is reliable reagents to detect, analyze and compare.

Based on capillary electrophoresis systems, the series of ADVANCED FRAGMENT ANALYSIS (AFA) techniques was developed for fast semi-quantification and multiplex. With the same specificity, sensitivity and simplicity as common qPCR technique, AFA enables more powerfull data throughput, shortens turnaround time and reduces the costs.

SureID® 21G Human STR Identification Kit is developed to meet the standard requirements of Combined DNA Index System (CODIS) 13 loci and expanded D12S391, D19S433, D1S1656, D2S1338, D6S1043, Penta E and Penta D and Amel.

With a high Discrimination Power $1-9.779 \times 10^{-24}$, the 21G system is widely used in databasing, reference sample screening, kinship analysis and extracted DNA from casework.

SureID® 21G Human STR Identification Kit is a quality and value choice for human identification.

The kit is suitable for direct amplification of various sample types - Whatman® FTA blood and saliva cards, Filter paper, Buccal swabs, Hair with follicle and Purified genomic DNA.

90 minutes standard PCR time makes it easily adaptable to your current workflow and SIZE standard is provided in every kit for free.

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