



GenoSPYD Total Nucleic Acid Extraction Kit

This extraction / purification kit belongs to the GenoSPYD range.

The GenoSPYD range has been designed to meet several applications:

- Analysis of **saliva**;
- Analysis of **liquid biopsy** (from blood serum);
- Analysis of **microbiote** (from saliva, urine, feces);
- Analysis of **sepsis** (from blood sample);
- Analysis of **sterility testing** (pharma product, surfaces, platelets, human cell culture, water...);

The GenoSPYD range is made up of several kits allowing to realize:

- Preparation and stabilization of liquid samples (from 250 μ l up to 10 ml);
- Extraction / purification of total nucleic acids (DNA & RNA) manually or automated;
- Detection / quantification of DNA/RNA bacteria, human mRNA, fragmented circulating DNA by molecular biology methods.
- Saliva sample preparation is compatible with Mass Spectrometry analysis

A- description

1. Principe

The nucleic acid (NA) Purification Kit procedure is based on reversible adsorption of nucleic acids to paramagnetic beads under appropriate buffer conditions. Sample lysis is performed into an appropriate buffer containing chaotropic salts. In order to create appropriate conditions for nucleic acids fixation on paramagnetic beads, Buffer MR2 and beads are added to lysate. Salts and contaminants are eliminated by buffer MR3 and MR4. Residual ethanol from wash steps is eliminated by a dry step. High purified NAs are eluted in buffer MR5. NAs could be directly used.



2. Specifications

The extraction / purification kit is provided to be used on King Fisher mL or King Fisher 96 or Ideal 24/96. Less than 2 hours are needed to perform up to 96 extractions. Extracted NAs could be directly used for PCR, RT-PCR amplification, ddPCR, NGS.

DNase proposed in the kit content could be use with an optional step. In this situation, due to recombinant DNase used, eluted RNAs are virtually free of DNA.

The whole extraction procedure could be performed at room temperature. The beads fixation capability is $> 0,3 \mu\text{g}$ of NA / μL of magnetic beads. 1 μL of beads suspension contain 130 μg of beads.

3 Kit contents, storage conditions and working solution preparation

Items for sample filtration	Conditioning	Storage
Oncoral Saliva Sample Kit (Provided on demand)	4X96	Room temperature

Reagent for extraction	Conditioning	Storage
Lysis tubes	4 x 96	Room temperature
Bacteria Lysis Buffer	4 x 190 mL	Room temperature
B-Beads	8 x 1,4 mL	Room temperature
Binding Buffer MR2	1 x 320 mL	Room temperature
Buffer for rDNase	3 x 60 mL	Room temperature
Elution Buffer MR5	3 x 125 mL	Room temperature
Wash Buffer MR3	4 x 90 mL	Room temperature
Wash Buffer MR4	1 x 400 mL	Room temperature
rDNase	12 x 200 U	Room temperature
RNase-free H ₂ O	1 x 30 mL	Room temperature

Caution: The Binding Buffer and the buffer MR3 contain a chaotropic salt, gloves, labcoat and goggles are necessary. The Binding Buffer and the buffer MR3 contain Guanidine thiocyanate that could create high reactive compounds when combine to bleach. NEVER ADD bleach or acid solution directly into the extraction waste.

All compounds are stable at least 1 year