

Thermo Scientific
KingFisher Kits



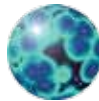
Nucleic Acid Purification Workflow Optimized



Blood DNA



Total RNA



Cell and Tissue DNA



Viral NA



Plant DNA

Thermo Scientific KingFisher Kits Complete the **Unique Nucleic Acid Purification Workflow**, Providing an **Optimized High-throughput Method** for **Extreme Flexibility!**

- Flexible KingFisher® system with optimized purification kits
- Customized kits for a wide variety of sample types
- Excellent performance and reproducibility
- Walk-away solution for any throughput

Highly Reproducible Purification

The Thermo Scientific KingFisher system offers a rapid, automated and reproducible purification workflow, by using magnetic rods to move particles through the purification phases of binding, washing and elution. After sample lysis, nucleic acids bind efficiently with coated magnetic beads in a suitable buffer; washing then eliminates contaminants and high purity DNA or RNA is eluted into the adjustable volume of elution buffer.

By eliminating laborious manual steps and purification problems such as filter clogging and risk of contamination, the KingFisher system produces consistent, high purity yields over multiple experiments.

Flexible Throughput

The KingFisher system can easily be scaled-up in terms of sample input volume and throughput – from one to 96 samples per run. Larger sample input volumes, for example up to 3 mL of blood, can be processed by the Thermo Scientific KingFisher Flex instrument.

Minimized Hands-on Time

High sample purity and yields are obtained with minimal user input, and the maximized walk-away time ensures efficiency.

Safe and Easy

The easy-to-use KingFisher system and straightforward Thermo Scientific BindIt software protocols facilitate safe sample handling.

Optimized KingFisher Kits and Protocols

Thermo Scientific KingFisher Kits and protocols have been optimized with Thermo Scientific KingFisher systems for the rapid purification of the highest quality yields of DNA or RNA, compatible with most common enzymatic downstream analyses and applications. There is no need for organic solvents or nucleic acid precipitation.

Premium Quality Beads

The KingFisher magnetic beads are characterized by high surface area, uniform size distribution and excellent suspension stability, making them ideal for high-throughput processing.

Total Thermo Scientific Nucleic Acid Isolation and Analysis Workflow

Liquid Handling



Versette automated liquid handling system for sample and reagent dispensing



Multidrop Combi automated dispensing for plate filling

DNA/RNA purification



KingFisher Kit reagents for purifying DNA/RNA



Blood DNA



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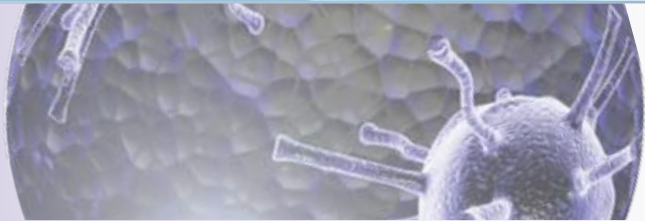
Viral NA



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KingFisher family of magnetic particle processors



Wide Range of Samples

From routine use to advanced requirements, Thermo Scientific KingFisher Kits are available for a broad variety of sample types, including blood, serum, cells, tissues, and plant material.

Excellent Performance

Blood DNA

The superior performance of the KingFisher Blood DNA Kits produces isolated DNA that is free of inhibitors and ready for use in many downstream applications. Figures 1 and 2 show the purity and consistency of isolated genomic DNA. Typical yields are 3-10 μ g DNA from 250 μ L blood and 90-130 μ g DNA from 3 mL blood.

Total RNA

With the KingFisher Total RNA Kit it is possible to purify RNA from up to 2×10^6 cells, with a typical yield of approximately 30 μ g. This excellent performance is demonstrated in Figure 3, which shows almost 30 μ g of high-integrity RNA produced from 1×10^6 HeLa cells.

Cell and Tissue DNA

KingFisher Cell and Tissue DNA Kit produces high yield and quality DNA from cells or tissues, with a typical yield of 10-20 μ g, depending on the sample material.

Viral NA

KingFisher Viral NA Kit has excellent sensitivity for the purification of viral NA, which is often scarce in the sample.

Plant DNA

KingFisher Plant DNA Kit is suitable for isolating DNA from various challenging plant samples.

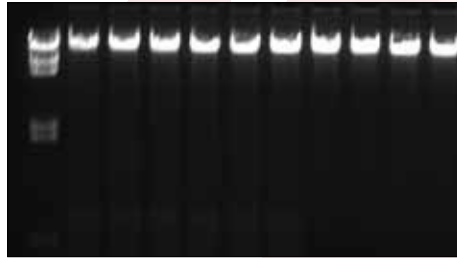


Figure 1.

DNA isolated from 250 μ L of whole blood samples using the KingFisher Blood DNA Kit and KingFisher Flex instrument. Agarose gel picture shows excellent reproducibility of the purification process.

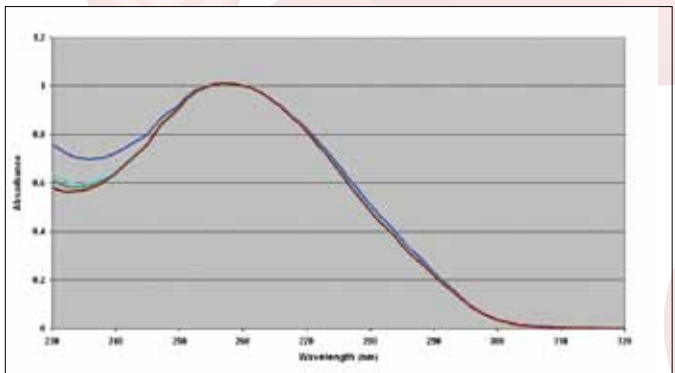


Figure 2.

DNA absorption spectra of control DNA and four whole blood samples purified with the KingFisher Blood DNA Kit and KingFisher Flex instrument, indicate that the purified DNA is of high quality. Measurements were performed using a Thermo Scientific Multiskan GO spectrophotometer.

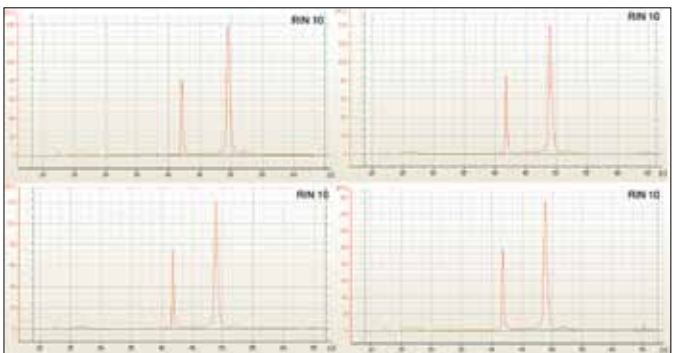


Figure 3.

Total RNA purified from 1×10^6 HeLa-S3 cells using the KingFisher Total RNA Kit and KingFisher Flex instrument shows consistent results with high quality RNA when analyzed on an Agilent Bioanalyzer 2100. The RNA integrity number (RIN) of the samples was 10, indicating that RNA was intact in all of the samples.

DNA/RNA analysis



NanoDrop series of small volume UV-Vis spectrophotometers



Multiskan GO UV-Vis cuvette- and plate spectrophotometers

PCR/qPCR



Piko Thermal Cycler for PCR applications

See the complete range and detailed information at thermoscientific.com/kingfisher

- BindIt Protocols
- Application Notes
- Articles
- Videos

Build your own workflow – contact your Sales Representative.

Specifications

Cat. No.	Description	Sample type	Validated BindIt protocols available for	Sample input	Samples per run	Reagents sufficient for (samples)	Elution volume* (µL)	Run time (min)
22387039	KingFisher Blood DNA Kit	Fresh or frozen whole blood, treated with EDTA or citrate	KingFisher mL	250 µL	15	96	150	45
			KingFisher Duo	250 µL	12/24	96	100	35
				3 mL	6	9	500	60
			KingFisher Flex	250 µL	96	96	150	35
3 mL	24	9		500	60			
22387041	KingFisher Total RNA Kit	Cells, tissues and samples stored in RNA stabilization reagent	KingFisher mL	Up to 20 mg of tissue or up to 2 x 10 ⁶ cells	15	96	150	60
			KingFisher Duo		12/24	96	100	55
			KingFisher Flex		96	96	150	55
22387043	KingFisher Cells and Tissue DNA Kit	Tissues, cells and cultured bacteria	KingFisher mL	Up to 20 mg of tissue, up to 1 x 10 ⁷ cells, or up to 1 mL of bacteria cultured overnight	15	96	150	25
			KingFisher Duo		12/24	96	100	25
			KingFisher Flex		96	96	150	25
22387045	KingFisher Viral NA Kit	Cell free body fluids, such as serum and plasma, or swabs	KingFisher mL	200 µL	15	96	100	45
			KingFisher Duo		12/24	96	100	40
			KingFisher Flex		96	96	100	40
22387046	KingFisher Plant DNA Kit	Fresh, frozen or lyophilized plant tissue such as leaves, seeds and grains	KingFisher Duo	Up to 50 mg of fresh tissue or up to 10 mg of dried tissue	12/24	96	100	30
			KingFisher Flex		96	96	150	30

DNA/RNA purified with all KingFisher Kits is suitable for PCR, Real Time PCR and other enzymatic downstream analysis methods

* recommended elution volume, but user-adjustable

Ordering Information

Cat. No.	Description	Package size
22387039	KingFisher Blood DNA kit 1 x 96 preps	96 preps
22387041	KingFisher Total RNA kit 1 x 96 preps	96 preps
22387043	KingFisher Cell and Tissue DNA kit 1 x 96 preps	96 preps
22387045	KingFisher Viral NA kit 1 x 96 preps	96 preps
22387046	KingFisher Plant DNA kit 1 x 96 preps	96 preps

All the Kits contain:

- KingFisher magnetic beads
- Lysis buffer, binding buffer, 2-3 wash buffers and elution buffer
- Kit-specific reagents to enhance performance

BN0130128: KingFisher Kits



In the United States:
For customer service, call 1-800-766-7000.
To fax an order, use 1-800-926-1166.
To order online: www.fishersci.com

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