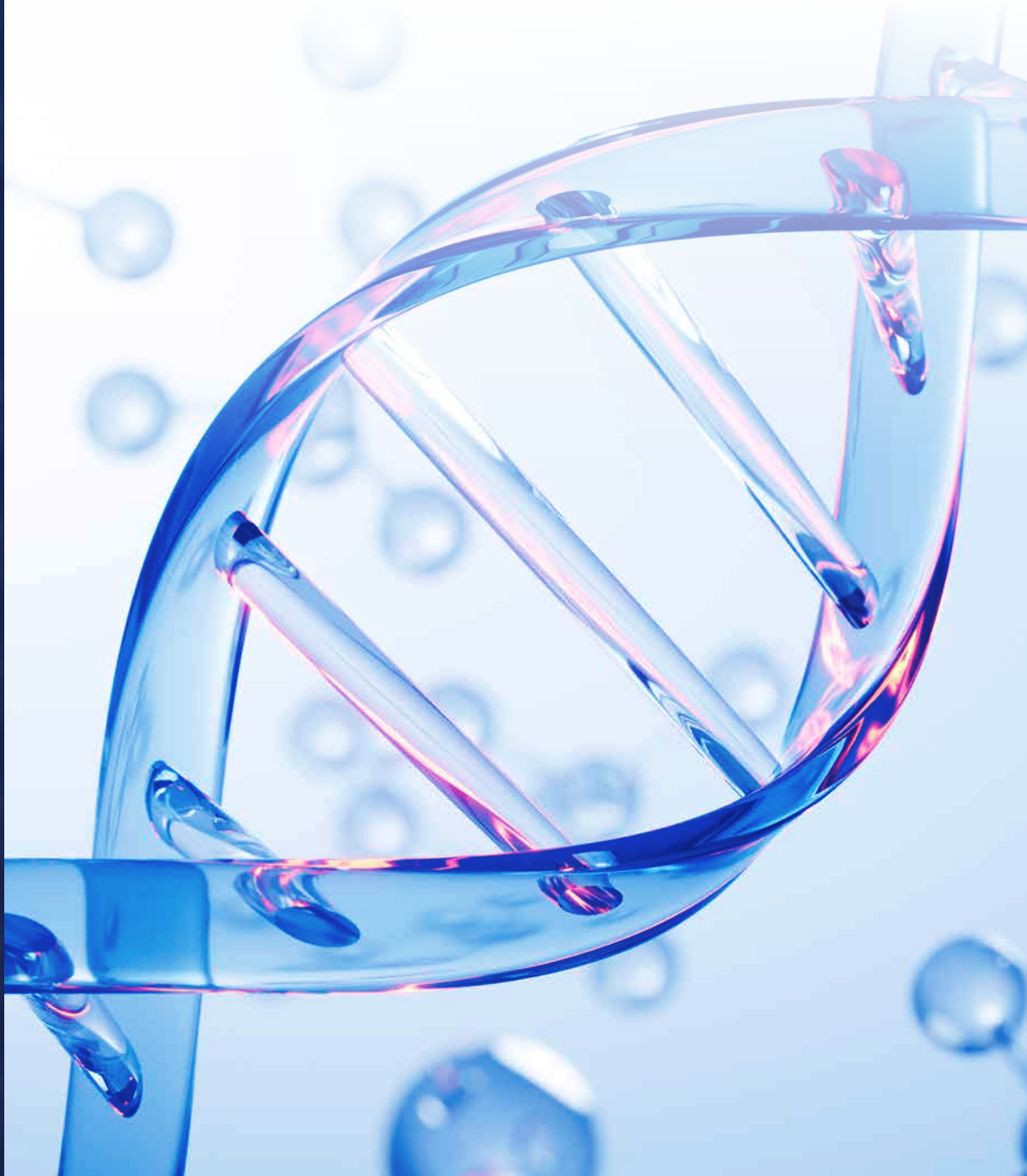




Ferrobeads[®]

Quick Nucleic Acid (DNA/RNA)
Isolation Kit™ & GeneFast™ Sample
Prep Automation Platform



Where Molecular Confidence Begins

About Ferrotec Life Sciences

Ferrotec Life Sciences sample prep kits and automation instruments deliver consistent, scalable nucleic acid isolation setting the foundation for dependable downstream molecular results.



“Our focus is simple: deliver reliable technology that removes complexity for our customers and accelerates scientific progress.”

Precision and Consistency You Can Trust

At Ferrotec Life Sciences, we believe great molecular results start with great sample preparation. Our sample prep kits and sample prep instruments are designed to deliver dependable, high-quality nucleic acid isolation helping laboratories build confidence in every downstream result.

Built on Ferrotec’s core magnetic nanoparticle technology, our sample preparation solutions are engineered for consistency, scalability, and workflow efficiency, supporting laboratories as they move from low- to higher-throughput molecular testing. Whether operating manually or with automation, our solutions are designed to integrate seamlessly into modern diagnostic workflows and support reliable assay performance.

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Precision Lab Solutions

Ferrotec Life Sciences Overview



Ferrotec Ferrobeads®

Silica-coated magnetic beads to isolate nucleic acids (DNA & RNA)



Ferrobeads® Quick Nucleic Acid (DNA/RNA) Isolation Kit™

DNA/RNA isolation kits powered by Ferrobeads for manual and automated workflows.



GeneFast™ Sample Prep Automation Platform

Automatic nucleic acid purification system for faster workflows

We're Here to Help

Contact Our Team

Looking to optimize your DNA and RNA extraction workflows? Connect with Ferrotec Life Sciences to learn how our solutions can accelerate research in your lab.

Sales & Product Ordering:

lifescience.orders@ferrotec.com

1-603-472-6444

Technical Support:

lifescience.support@ferrotec.com

1-603-472-6444

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Ferrobead Technology

Magnetic Silica Ferrobeads®

Silica-Coated Magnetic Bead Technology

The fundamental technology of the product is its silica-coated magnetic beads. Unlike standard filtration methods, this technology utilizes magnetism to separate nucleic acids from complex biological mixtures.

High Surface Area

The beads are engineered to provide a "large surface area," which directly results in enhanced binding efficiency and superior capture of nucleic acids.



High Binding Capacity

The technology ensures a high binding capacity, enabling reliable, consistent extraction even from difficult samples.

Universal Nucleic Acid Isolation Chemistry

Ferrobeads utilize a versatile chemical formulation that allows for "universal" extraction capabilities within a single kit.

Dual Extraction (DNA & RNA)

The technology is capable of isolating both DNA and RNA. Users can co-purify or separate them using the same kit, eliminating the need to purchase separate products for different nucleic acids.

Broad Sample Compatibility

The lysis and binding chemistry is robust enough to process a wide diversity of "dirty" or complex sample types, including plasma, cultured cells, and plant/animal tissues.

Inhibitor Removal

The technology is designed to remove inhibitors effectively, ensuring the extracted genetic material is pure enough for sensitive downstream applications.

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Ferrobead® Advantages

Reliable Performance You Can Trust

Designed to deliver consistent, reproducible results day after day

Lab-friendly by Design

Easy to integrate into established workflows and systems

Scalable for Growing Demands

Supports high throughput environments without sacrificing quality

Backed by Expertise

Developed with real-world reference lab challenges in mind

Ready to see how it works for your lab?

Learn more about Ferrobeads Quick DNA/RNA isolation kit (manual vs. automation instrument), request a demo, or speak with our team to explore how it can support your testing needs today.

Balanced Total NA Recovery

Designed to recover both DNA and RNA without sample bias

Consistent Performance

High relative recovery with low sample to sample variability

Broad Sample Support

Effective across cells, tissues, and blood-derived samples

Efficient Workflow

Magnetic bead format supports fast, scalable processing

Automation Ready

Compatible with manual and automated laboratory workflows

Product specifications

Isolation Chemistry	Magnetic bead-based total nucleic acid (DNA & RNA) purification with minimized sample bias using a single, universal protocol
Nucleic acid type	Total nucleic acid (DNA & RNA) from the same sample
Performance metric used	High relative recovery with low variability
DNA and RNA balance	Balanced recovery of DNA and RNA
Sample Compatibility	Cells, solid tissues, blood-derived samples, challenging biological matrices
Challenging samples	Demonstrated performance with tough-to-lyse cells and tissues
Workflow Speed	Rapid magnetic bead workflow with minimal hands-on time (<15 minutes)
Purity	High-purity nucleic acid suitable for PCR/RT-PCR
Elution Format	Low-salt buffer, user-defined elution volume
Automation Readiness	Automation-friendly magnetic bead format

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Fast. Flexible. Pure.

Ferrobeads® Quick Nucleic Acid (DNA/RNA) Isolation Kit™



Ferrotec Ferrobeads® deliver high-efficiency nucleic acid extraction optimized for diverse applications, compatible with manual and automated workflows.



Superior Binding Efficiency

A large silica surface area ensures consistently high nucleic acid yields, while high magnetic content (>80% by weight) enables rapid separation in as little as 30 secs.

Reliable Extraction Workflows

Trusted performance for PCR, RT-PCR, and other molecular applications, with fast workflow under 30 minutes manually or 15 minutes with automation.

Scalable Solutions

Multiple formats available to match your throughput needs, with the capacity to process 96+ samples in a single run.

Open Platform Flexibility

Compatible with both manual and automated workflows, offering walk-away automation to reduce hands-on time and fit seamlessly into any lab setup.

Optimized Chemistry

Removes contaminants to deliver high-quality DNA/RNA from the same sample, compatible with PCR, qPCR, dPCR, and sequencing across tissue, cell, and blood samples.

Purification time: Target 10–25 min

Elution volume: 15–80 µl

Yield: High Yield

Purity: A260/A280 1.8–2.0

Product specifications

Sample Types	Cell Cultures, Tissue (Plant), Tissue (Non-Plant), Plasma Serum, Blood
Downstream Applications	RTPCR, qPCR, dPCR, Gene expression, genotyping, Rare mutation detection (RMD), Copy number variation (CNV), Single Nucleotide Polymorphisms (SNP)
Kit Contents	Lysis buffer, Wash buffer, Beads, Elution buffer
Available Sizes	100 preps, 500 preps

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High Yields Without the Hassle

Traditional Trizol-based methods require significant time and technical skill and often deliver inconsistent yields. Meanwhile, many commercial magnetic bead solutions lock you into rigid workflows that require proprietary instruments—adding cost and complexity to your lab.

Ferrobeads® Offer a Better Path Forward

With high binding efficiency from a large silica surface area, Ferrobeads deliver the reliable yields your molecular research demands. The open-platform design integrates seamlessly into manual or automated workflows—no locked systems, no forced upgrades. And with multiple reaction sizes available, you can scale to match your throughput without compromising your budget.

One Universal Kit for Blood, Tissue, and Cells

Ferrobeads utilize high-binding, silica-coated magnetic beads to deliver consistent, contaminant-free DNA and RNA isolation across diverse sample types. By offering this universal, open-platform performance at roughly half the price of leading competitors, you can consolidate your inventory into a single product and significantly reduce your cost per reaction.

Ready to purchase
Ferrobeads® Quick Nucleic
Acid Isolation Kits?



Ordering Details

FB100	100 Preps Ferrobeads® Quick Nucleic Acid (DNA/RNA) Isolation kit™
FB1001	500 Preps Ferrobeads® Quick Nucleic Acid (DNA/RNA) Isolation kit™
GSP01	GeneFast™ Sample Prep Automation Platform
GDP01	GeneFast 96 deep well plates + 8 strip-tip

For product inquiries, please contact lifescience.orders@ferrotec.com

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Nucleic Acid
Purification System

GeneFast™ Sample Prep Automation Platform



Accelerate DNA/RNA purification with GeneFast™ Sample Prep Automation Platform

Achieve superior sample recovery with zero residue, thanks to precision-engineered magnetic rod technology and dynamic amplitude control. Enhanced thermal uniformity optimizes every lysis and elution step, while integrated UV sterilization and disposable tip combs ensure contamination-free results. An intuitive cockpit-style interface and extensive protocol storage make consistent, reproducible performance effortless—run after run.



Superior Recovery & Minimal Loss

Newly designed magnetized rods and dynamic amplitude control prevent bead adhesion to tube walls, ensuring zero residue and compatibility with all magnetic bead formats.



Precision Thermal Control

An enhanced, encapsulated deep-well heating block provides superior temperature uniformity, maximizing the efficiency of critical lysis and elution steps.



User Safety & Contamination Control

Integrated UV sterilization and disposable 8-strip tip combs effectively eliminate aerosol cross-contamination between runs, maintaining the highest standards for experimental integrity.



Intuitive Interface

A modern "cockpit-style" UI provides real-time visibility of all run parameters and protocols, streamlining operation for multi-user environments.



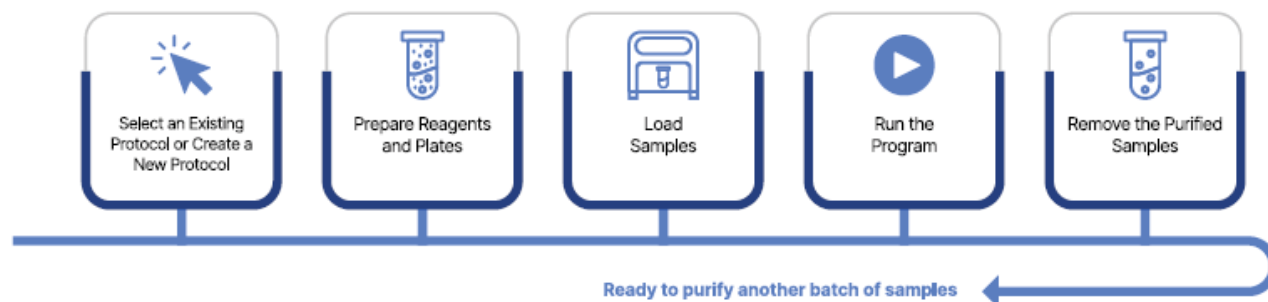
Validated Standardization

Extensive on-board storage for custom protocols ensures consistent performance and high reproducibility across every experiment.

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How does the GeneFast™ Sample Prep Automation Platform work?

The built-in heating function of the GeneFast™ Sample Prep Automation Platform system has been proven to accelerate sample lysis and ensure greater nucleic acid release. It also helps increase the nucleic acid yield ratio and improves overall extraction efficiency.



Product specifications

Product Name	GeneFast™ Sample Prep Automation Platform
Model	NPA-32P and NPA-96P
Sample Size	32pcs/time
Magnetic rod (fixed)	4x8 pcs
Sample Range	20~1000µl
Magnetic Bead Collection Efficiency	>98%
Most Suitable Size of Magnetic Beads	0.2~1.0 µm
Consumables	96 deep well plates + 8 strip-tip
Module Temperature Range	Room temperature +5°C-120°C
Barcode Reader	Optional
Anti-Contamination	UV Lamp
Reagent Type	Magnetic beads-based reagent
Communication Port	USB
Power Supply	AC100-240v 60-60HS
Overall Dimensions mm	430x395x435 (LxWxH)
Net Weight	32.5Kg (71.65 lbs.)

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A Universal Sample Preparation Solution

Ferrobead® Applications

Once the nucleic acids are extracted, Ferrobeads are optimized for use in the following downstream applications and market sectors:

Key Industry and Research Fields



**Infectious
Disease
Diagnostics**

Supports diagnostics for gastrointestinal, respiratory, and STI testing.



**Oncology
& Liquid
Biopsy**

For plasma/serum samples for cancer monitoring.



**Forensics
& Human ID**

Extracting DNA for identification purposes.



**Agricultural
Biotechnology**

Extracting nucleic acids from plant tissues.



**Food Safety &
Environmental
Testing**

Analyzing environmental samples for contaminants or pathogens.



Downstream Molecular Analysis

**Quantitative
PCR (qPCR)**

For gene expression analysis and viral, bacterial pathogen detection

**Digital PCR
(dPCR)**

For high-precision and ultra-sensitive nucleic acid analysis

**Sequencing
Applications**

Delivering high quality DNA and RNA for sequencing applications

**Gene
Editing**

PCR-based workflows for CRISPR and gene editing verification

**PCR
Cleanup**

Purifying DNA after amplification

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About Ferrotec

Ferrotec provides customers with advanced technology solutions that make their products work better, more precisely, and reliably. We are a world-leading manufacturer, marketer, and distributor of advanced materials, components, and assembly solutions used in a wide range of end products, manufacturing systems, and industries.

Connect with Our Team

We're Here to Help

Ferrotec works with customers across industries to deliver advanced materials and engineered solutions rooted in innovation. Whether you have a technical question or want to explore our capabilities, our team is ready to connect.

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