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Thermo Scientific Purification Systems

The Thermo Scientific KingFisher® magnetic particle processors utilize a revolutionary and patented method to purify proteins, nucleic acids and cells in a convenient, rapid and reproducible manner. The KingFisher system consists of instruments, specially designed plastics and software to provide a total purification solution for customer applications.

www.thermo.com/kingfisher



Thermo Scientific KingFisher Family

The Thermo Scientific KingFisher magnetic particle processors are designed to automate time-consuming sample preparation processes of nucleic acids, proteins and cells from virtually any source. The KingFisher family consists of three instruments with different throughput and volume capacities to fulfill customers' individual sample-processing needs.

Due to the innovative idea of transfer of magnetic particles instead of liquids, the KingFishers offer rapid and reproducible purification of high-quality DNA, RNA, proteins and cells for various types of downstream applications.

Unique technology

Thanks to their unique technology, the KingFisher instruments allow fast and reproducible sample purification from various and often difficult starting materials with high quality and yield.

Open and flexible system

The KingFisher is an open and flexible system, letting the customer use any magnetic particle-based purification kit to meet application and budget demands. With KingFisher Software, the customer can easily design custom-made protocols for their own applications with the most suitable reagents.

Ready-made purification protocols

Ready-made and validated purification protocols for different types of applications are available at www.thermo.com/kingfisher, giving customers the possibility to choose the best possible method for the sample process.

Highest throughput on the market

The Kingfisher 96 achieves the highest throughput on the market – up to 96 samples can be processed even in under 15 minutes.

KingFisher Applications

- Genomics & proteomics
- Drug discovery
- Forensics
- Biomarker discovery
- Quality control
- Veterinary assays



Thermo Scientific KingFisher 96

Using a 96 plate format, KingFisher 96 provides the fastest and easiest way to purify genomic DNA or RNA and proteins from a variety of sample material. Supplied with ready made protocols, Kingfisher 96 also allows you to create your own custom-made protocols for special applications.

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Technical Specifications

| | KingFisher 96 | KingFisher | KingFisher mL |
|--------------------------------|--|--|--|
| Processing volume | 20-1000 µl | 20-200 µl | 50-1000 µl |
| Capacity | 96 samples/run | up to 24 samples/run | up to 15 samples/run |
| Particle collection efficiency | > 95% | > 99% | > 95% |
| Particle size | <1 µm | <1 µm | <1 µm |
| Magnet rods | 96 format interchangeable magnet heads | 2 x 12 format | 3 x 5 format |
| Sample vessel (disposable) | 96 well plates: KingFisher 96 plate (20-200 µl), PCR plate (20-100 µl), deep well plate (50-1000 µl) | 8 x 12 strip plate (100µl or 200µl), capacity for 2 plates | 3 x 5 separate disposable tube strips, 5 tubes/strip |
| Tip combs (disposable) | 96 in one frame, for KingFisher plate, for PCR plate, for deep well plate | Special desing, 2 x 12 format | Special design, 3 x 15 format |
| Incubation | From room temperature to +96°C | NA | NA |
| Internal software | Space for 100 internal protocols | Space for about 8 internal protocols | Space for about 8 internal protocols |
| Keyboard/display | START/STOP/four cursor keys/LCD | START/STOP/two cursor keys/LCD | START/STOP/two cursor keys/LCD |
| Robot compatibility | Yes | No | No |
| Dimensions (HxWxD) | 68 x 60 x 38 cm | 30 x 30 x 30 cm | 30 x 30 x 30 cm |
| Weight | ca. 28 kg | 11.5 kg | 11.5 kg |



Thermo Scientific KingFisher mL

KingFisher mL is your choice for high volumes. It allows all purification and processing steps to be carried out in a single strip of five tubes. Being able to go as low as 50 µl to release target molecules, enables cells and proteins from larger starting volumes to be isolated and concentrated simultaneously.



Thermo Scientific KingFisher

KingFisher gives you the ability to purify small-scale samples. All purification and processing steps are carried out in microplates with simple push button operation.

Thermo Scientific KingFisher Family

Ordering Information

| Cat. No | Description |
|----------|--|
| 5400000 | KingFisher, Magnetic Particle Processor, 100-240 V, 50/60 Hz (for microplates) |
| 5400050 | KingFisher mL, Magnetic Particle Processor, 100-240 V, 50/60 Hz (for tubes) |
| 5400500 | KingFisher 96 Magnetic Particle Processor, 100-240 V, 50/60 Hz Includes one magnet head |
| 24073410 | KingFisher 96 Head for PCR plate |
| 24073420 | KingFisher 96 Head for KingFisher 96 plate |
| 24073430 | KingFisher 96 Head for Deep Well plate |
| 2803810 | KingFisher software |

Accessories / User Replaceable Parts for KingFisher

| Cat.No | Description |
|----------|------------------------------|
| 11273100 | KingFisher mL Tube tray |
| 24073180 | KingFisher mL Microtube tray |

Consumables for KingFisher

| | |
|----------|-------------------------------------|
| 97002070 | KingFisher tip comb, 50 pcs/box |
| 97002080 | KingFisher plate 100 µl, 50 pcs/box |
| 97002084 | KingFisher plate 200 µl, 50 pcs/box |
| 97002090 | KingFisher plastics 100 µl 8-pack |
| 97002094 | KingFisher plastics 200 µl 8-pack |

Consumables for KingFisher mL

| | |
|----------|--|
| 97002111 | KingFisher mL tip comb, 800 pcs |
| 97002121 | KingFisher mL tube, (20x45 pcs) |
| 97002131 | KingFisher mL Combi 60, (tubes and tip combs for 60 samples) |
| 97002141 | KingFisher mL Combi 240, (tubes and tip combs for 240 samples) |

Consumables for KingFisher 96

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|----------|---|
| 97002514 | KingFisher 96 tip comb for PCR magnets, 8 x 10 pcs / box |
| 97002524 | KingFisher 96 tip comb for KF 96 magnets, 10 x 10 pcs / box |
| 97002534 | KingFisher 96 tip comb for DW magnets 10 x 10 pcs / box |
| 97002540 | KingFisher 96 KF plate (200µl) 48 plates / box |
| 95040450 | Microtiter Deepwell 96 Plate 50 pcs / box |



Thermo Scientific KingFisher software

KingFisher Software is designed to allow you to develop custom-made protocols for your own applications and run them in the KingFisher instruments. Protocols can be modified smoothly and loaded in the KingFisher instruments for easy use.