



Automated plasmid DNA purification

## Automate your plasmid DNA purification workflows with a high-throughput integrated solution

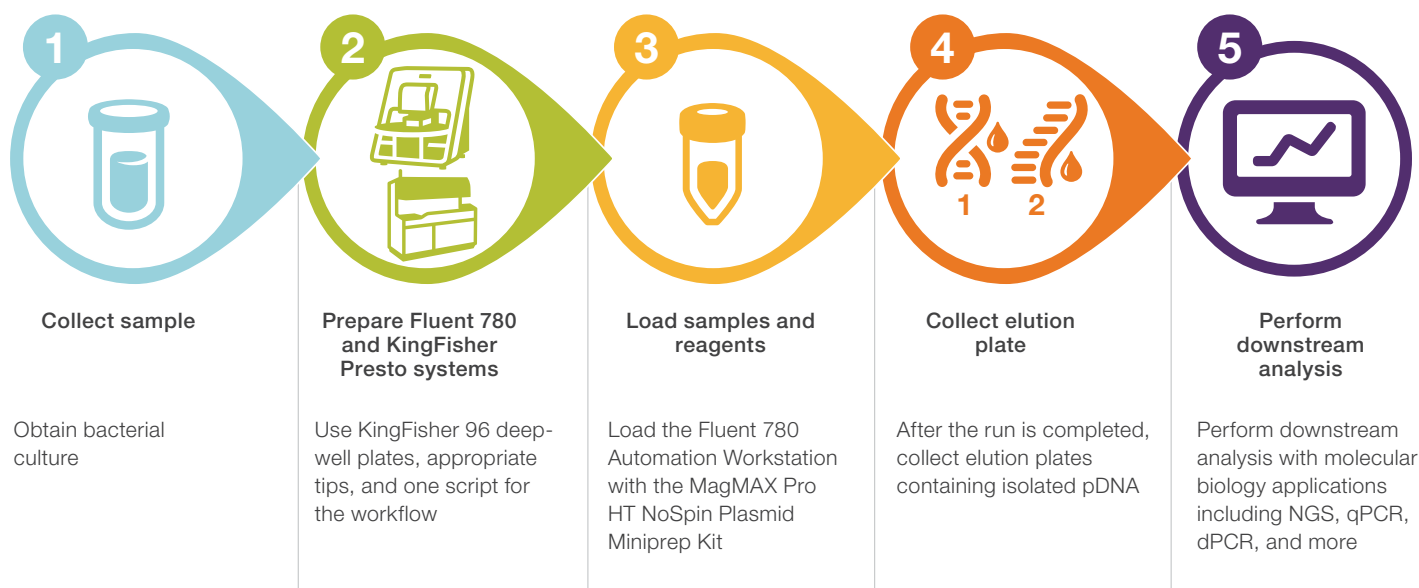
**Purify high-quality pDNA and save time by reducing multiple manual steps**

Integrate the Thermo Scientific™ KingFisher™ Presto Purification System into a Tecan® Fluent® 780 Automation Workstation to achieve automated workflows without the need to prepare plates and reagents for sample preparation (Figure 1). Reduce operator hands-on time with workflows optimized to be consistent and reproducible without sacrificing sample quality.

The Applied Biosystems™ MagMAX™ Pro HT NoSpin Plasmid Miniprep Kit can be leveraged on a high-throughput integrated solution, i.e., the Fluent 780 Automation Workstation with the KingFisher Presto instrument, for isolation of plasmid DNA (pDNA) on a miniprep scale. Optimized and validated scripts are available to assist you in setting up your high-throughput workflow.



Fluent 780 Automation Workstation and MagMAX Pro HT NoSpin Plasmid Miniprep Kit



**Figure 1. Basic workflow of high-throughput isolation of pDNA.** The KingFisher Presto system is integrated into the Fluent 780 Automation Workstation and used with the MagMAX Pro HT NoSpin Plasmid Miniprep Kit.

## Chemistry specifications

Description	
Qualified sample prep kit	MagMAX Pro HT NoSpin Plasmid Miniprep Kit
Throughput	96–384
Sample type	Bacterial culture (1 mL)
Sample input format	KingFisher 96 deep-well plate (4)
Sample output format	KingFisher 96 deep-well plate (4)/384-well PCR plate (1)

## Instrument specifications

Description	
Automation workstation	Fluent 780 system
System integration	KingFisher Presto system (2)
Required arm(s)	Flexible Channel Arm™ (FCA), 8-channel Multiple Channel Arm™ (MCA), for 96 or 384 wells Robotic Gripper Arm™ (RGA)
Dimensions (D x W x H)	78.5 x 165.0 x 123.6 cm (30.9 x 65.0 x 48.6 in.)
Dimensions (D x W x H) with Kingfisher Presto system integration	107.2 x 165.0 x 123.6 cm (42.2 x 65.0 x 48.6 in.)
Weight (not including the Kingfisher Presto system)	~308.6 lb (140 kg)
Warranty	1 year included, extended warranties available

## Operation

Description	
Power input	100–240 V AC, 50–60 Hz, 5 A
Operating temperature	15–32°C (59–90°F)
Relative humidity	30–80% noncondensing

## Computer\* and software specifications

Description	
Operating system	Microsoft™ Windows™ 10 Enterprise LTSC 2019 (version 1809)
Processor	Intel™ Core™ i7 processor or equivalent
Memory	32 GB RAM
Hard drive	Solid-state hard drive with 512 GB free space
Graphics card	NVIDIA™ GPU with minimum 5 GB RAM and CUDA™ node support
Network card	1–2 GigE Network cards with Intel™ chipsets
Communication	1 USB port
Monitor	Vertical resolution of 1,024 pixels

\* Minimum specification.

## Performance

Flexible Channel Arm (FCA)—air displacement pipetting*										
Gravimetric measurement using deionized water in single pipetting mode under optimized conditions,** free dispense										
Tecan® Disposable Tip (DiTi) size	DiTi 10		DiTi 50		DiTi 200		DiTi 350		DiTi 1,000	
Volume (µL)	CV	ACC	CV	ACC	CV	ACC	CV	ACC	CV	ACC
0.5	≤6%	±9.5%	–	–	–	–	–	–	–	–
1	–	–	≤4%	±8%	–	–	–	–	–	–
10	≤1%	±2%	≤0.5%	±1%	≤2%	±2%	≤2%	±2%	≤1.2%	±2%
100	–	–	–	–	–	–	–	–	≤0.3%	±0.5%
200	–	–	–	–	≤2%	0.5%	0.2%	0.5%	–	–

\* Manufacturer's field CV guarantee: Liquid FCA standard volume range 10 µL ≤3%, 100 µL ≤0.5%; liquid FCA low volume range 1 µL ≤8%, 10 µL ≤1.5%; air FCA 1 µL ≤8%, 10 µL ≤2%; MCA 96 and MCA 384 1 µL ≤4%.

\*\* Optimization may include single-channel calibration for volumes ≤5 µL.

## Multiple Channel Arm (MCA)\*

Colorimetric measurement results in single pipetting mode under optimized conditions; deionized water and free dispense unless otherwise indicated.

MCA head	MCA 384		MCA 384		MCA 384		MCA 384		MCA 384		MCA 96		MCA 96	
DiTi sizee	384 DiTi 15 µL		384 DiTi 50 µL		384 DiTi 125 µL		96 DiTi 500 µL		125 µL fixed washable tips		96 DiTi 10 µL		96 DiTi 1,000 µL	
Volume	CV	ACC	CV	ACC	CV	ACC	CV	ACC	CV	ACC	CV	ACC	CV	ACC
0.25 µL DMSO**	5%	±10%	–	–	–	–	–	–	–	–	–	–	–	–
1 µL water†	≤3%	±5%	≤4%	±5%	–	–	–	–	–	–	≤4%	±5%	–	–
2 µL water†	–	–	–	–	–	–	–	–	–	–	≤2%	±5%	–	–
10 µL water†	≤2%	±5%	≤1%	±5%	≤1%‡	±5%‡	–	–	≤4%	±5%	≤1%	±2%	–	–
20 µL water	–	–	–	–	–	–	–	–	–	–	–	–	≤1%	±4%
100 µL water	–	–	–	–	≤1%	±5%	–	–	≤2%	±3%	–	–	≤1%	±4%
500 µL water	–	–	–	–	–	–	≤2%	±5%	–	–	–	–	≤1%	±1%
1,000 µL water	–	–	–	–	–	–	–	–	–	–	–	–	≤1%	±1%

\* Manufacturer's field CV guarantee: Liquid FCA standard volume range 10 µL ≤3%, 100 µL ≤0.5%; liquid FCA low volume range 1 µL ≤8%, 10 µL ≤1.5%; air FCA 1 µL ≤8%, 10 µL ≤2%; MCA 96 and MCA 384 1 µL ≤4%.

\*\* Contact dispense, Orange G

† Using contact dispense for MCA 384 head

‡ Also achieved with DiTi 200 (96-well format)

The combination of the Fluent 780 Automation Workstation and KingFisher Presto system, developed through a collaboration between Tecan and Thermo Fisher Scientific, is a comprehensive and unified solution. The combination workstation optimizes automated nucleic acid extractions from biological samples like blood, plasma, saliva, and plasmids in bacteria. Utilizing magnetic

bead-based processing in both 24- and 96-well formats, the combined workstation of the Fluent 780 and KingFisher Presto systems can easily be adapted to evolving lab requirements while simultaneously delivering high-quality results, all within a compact footprint—excellent for preserving valuable laboratory space.

## Ordering information

Description	Quantity	Cat. No.
KingFisher Presto Purification System, 96 deep-well head	1 each	5400830
KingFisher Presto Purification System, 24 deep-well head	1 each	5400840
MagMAX Pro HT NoSpin Plasmid Miniprep Kit	1 kit	A58312
KingFisher 96 deep-well plate	Case of 50	95040450
KingFisher 96 tip comb for deep-well magnets	Case of 100	97002534
KingFisher 24 deep-well plate	Case of 50	95040470
KingFisher 24 deep-well tip comb and plate	Case of 50	97002610

 For more information about Tecan's Fluent Automation Workstations, visit [lifesciences.tecan.com/fluent-laboratory-automation-workstation](https://lifesciences.tecan.com/fluent-laboratory-automation-workstation)

 Learn more at [thermofisher.com/plasmid](https://thermofisher.com/plasmid)

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