

CE IVD

GENES2me<sup>®</sup>  
DX



Blood  
FFPE  
Tissue & Body Fluids  
Circulating Cell Free  
Forensic  
Saliva  
DBS  
Viral RNA  
Bacterial  
Plasmid  
Plant

## Nucleic Acid Extraction Solutions

Most Comprehensive Products Range

RAPi-X16 | RAPi-X96 | SPIN~~X~~T | MAGN~~X~~T



**Genes2Me has developed variety of nucleic acid extraction kits compatible with Rapi-X16/ Rapi-X96 & other extractors based on similar principles**

## CONTENTS

<b>Introduction to Extraction</b>	<b>03</b>
<b>Instruments</b>	
<b>Rapi-X96</b>	<b>04-05</b>
<b>Rapi-X16</b>	<b>06-07</b>
<b>Purification Methodology</b>	<b>08-09</b>
<b>Extraction Kits</b>	
• Blood	10-12
• FFPE	13
• Tissue & Body Fluids	14-15
• Circulating Cell Free	16
• Forensic	17
• Saliva	18
• DBS	19
• Viral RNA	20-21
• Gel Extraction	22
• Plasmid	23
• Bacterial	24-27
• Plant	28-31
<b>• Ordering Guide</b>	

# Introduction to Extraction

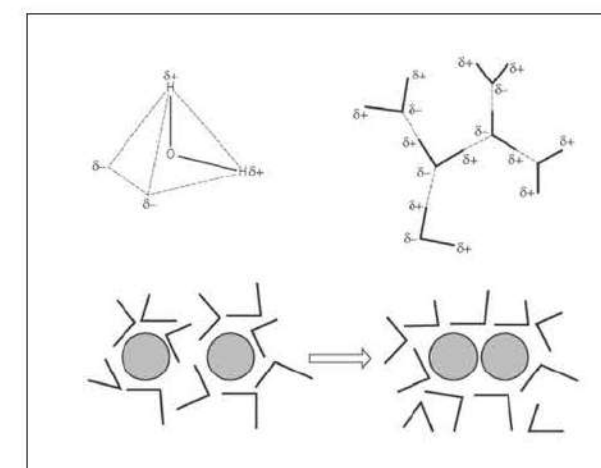
The GITC is a hydrogen bond competitor, that can disrupt the hydrogen bonds between base pairs and denature nucleic acid at high enough concentrations

The Chaotropic salts like acidified guanidine isothiocyanate technique is routinely used in biochemistry to isolate DNA/RNA/Proteins when clubbed with purification technique either silica membrane column based or paramagnetic bead based further leads to yield of highly purified recovery of macromolecules. The chaotropic agent aids in denaturation and the nucleic acids separate according to pH of the mix, which further determines the extent of purification of the extracted product. DNA separates out at acidic pH(4-6) while both RNA/DNA at neutral pH(7-8), lastly the nucleic acid is precipitated using Isopropanol.

Guanidinium act by forming hydrogen bonds with both, the dissolved macromolecule and water. The water molecules are arranged as a shell around the hydrophobic regions so as to contain it, which leads to the reduction of entropy.

This containment causes hydrophobic regions to come together and give rise to a pseudo-interaction (hydrophobic interaction). (See the figure). Guanidinium interacts with the water shell and disorders it, thereby reducing the hydrophobic effect. Guanidinium can also interact with macromolecules directly, by forming hydrogen bonds. In this process they can disrupt the normal H-bonds in the macromolecule.

**What is a Chaotropic Agent?**  
A chaotropic agent is the detergent that denatures proteins by solubilizing hydrophobic groups and increasing the entropy in the extraction mix



## High-End Proteinase K with Enhanced Stability

Proteinase K is a subtilisin-related proteolytic enzyme serine protease with broad spectrum and high activity. It is widely used for its great specificity and is purified from the mold *Tritirachium album*. It hydrolyzes a variety of peptide bonds and is frequently used to cleanup enzymatic reactions or cell lysates. In solution, it is stable over the pH range of 4.0 to 12.5.

### High Sensitivity & Purity

- Higher stability and enzyme activity based on directed evolution technologies
- No detectable endonuclease, exonuclease, DNase or RNase contaminating activities
- Tolerant of Guanidine salt
- Free of enzyme impurities and heavy metal ions, DNA <5 pg/mg



# RAPi-X96

## Fast & Fully Automated Nucleic Acid Extraction System

### Principle

Rapi-X 96 Automated Nucleic Acid Extraction System adopts magnetic bead separation technology. Through the separation of the magnetic rods and the disposable magnetic rod tip combs, the magnetic rods are transferred between the deep hole plates containing specific reagents to realize the collection, release, transfer and incubation of the magnetic beads.

### Technical Specifications

Model	Rapi-X 96
Sample throughput	1 – 96
Processing volume	20µL – 200µL
Processing time	10 – 20 mins
Elution Volume	30µL – 100µL
Temperature control	4 – 105°C
Module station	4, 2 heatable
Magnetic bead recovery	≥98%
Program storage	Store > 500 groups of programs
Operation interface	10" 1024 x 600 color screen
Network communication	Ethernet Remote Control
Operating temperature range	5°C – 40°C
Operating humidity range	Less than 80%
Expand interface	USB interface, RS232 interface
Pollution control	UV sterilization, Level 11 HEPA
Size	510mm (L) x 430mm (W) x 470mm (H)
Weight	27kg[±0.5kg]
Compatibility	Open platform, maximum compatibility with magnetic bead Kit
Power Supply	AC100–240 Vac, 50/60 Hz

- **High Throughput** : 96 samples can be extracted within 10-20 mins based on kit & application
- **Light Weight** : Saves laboratory space
- **10 inch Large Display** : Simple interface & easy operation
- **Open Platform** for all other available automation friendly magnetic bead based kits

### Rapi-X 96

Automated Nucleic Acid Extraction System is based on magnetic bead separation technology.



#### Ready to use pre-filled Kits available

Open the sleeve - Addsample - press start



#### Unique Structure

the instrument has 4 plate positions, 2 plate positions are heated as standard, pre-heating system

#### Contamination Control

UV sterilization device and 11 level HEPA high efficiency air filter screen effectively eliminate aerosol pollution





# RAPi-X 16

Fast & Fully Automated Nucleic Acid Extraction System

## Technical Specifications

Items	Parameters	Items	Parameters
Processing volume	30-1000ul	Operation Interface	Embedded touch screen
Sample Throughput	upto 16	Operation Program	Android system
Magnetic Bead Recovery	>98%	Data Storage	Can store >500 groups of programs
Number of magnets	16	Exhaust method	Fan
Sample Processing Time	~15 min	Extension module	1USB
Purification Sensitivity (detection rate)	>95%	Flashlight	YES
Extract well-to-well differences	CV<3%	UV irradiation	YES
Consumables	96 deep well plate with comb	Low noise processing	Noise<65dB
Heating Temperature	25°C - 120°C	Product Dimensions	250mmx320mmx275mm
Oscillating mix	Multi-level adjustable	Weight	10kg
Reagent Type	Magnetic bead method	Power supply	AC198-242V

One Unique Kit Solution for Isolation of Nucleic Acids from different biological sample types

Offers optimized and user friendly protocol for Isolation of pure, intact nucleic acids from a variety of biological samples.



- Whole Blood
- Saliva/ Sputum
- Nasopharyngeal/ Oropharyngeal swabs
- Plasma/Serum
- Urine
- Other body fluids

Robust & Compact DNA/RNA Extraction System  
*Ideal for Point-of-Care Testing Purpose*



## Features

- Suitable for Extraction & Purification of various clinical samples
- Extraction time ~ 15 minutes
- Light weight & One-fourth in size to available Nucleic acid extractor in the Market
- Temperature uniformity & accurate controls
- High Sensitivity with Precise mechanical movement
- Magnetic Bead based method with a high Recovery Rate of Magnetic Beads >98%
- Powerful application to efficiently meet different reagent requirements

\*Above instruments are compatible with Genes2Me Kits along with other available kits which works on the similar principle in the market.



# Our solution for Nucleic Acid Purification & Isolation



Spin Column purification is a solid phase extraction technique to bind and isolate DNA/RNA within filter-based spin columns

We offer a broad range of DNA Column purification kits that utilize membranes containing silica to bind nucleic acids. Samples are lysed in a buffered solution containing a high concentration of chaotropic salt aiding in protein denaturation and enhancing Proteinase K activity. The lysates are passed through the silica membrane with the addition of absolute ethanol using centrifugal force, with the nucleic acids binding to the silica gel membrane at appropriate pH.

The membrane containing residual proteins, salts and other cell debris is then washed to remove impurities with optimized wash buffers with flow-through discarded. DNA/RNA is subsequently eluted with optimized low-salt Elution buffers or nuclease free water and is ready to use in a number of downstream applications such as cloning, Q-PCR, Next generation sequencing, Southern blotting and so on.

## Simple 4-step protocol for spin column purification

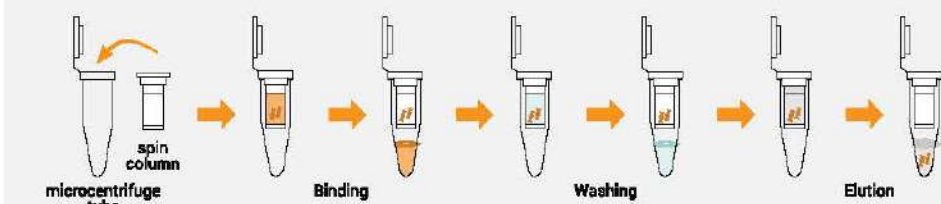


Fig 1: Spin column purification protocol – The protocol for purifying genomic DNA from various samples using "SPiNXT" purification kits using 4 simple steps- lyses, wash, elute, and purify.

Genes2me offers convenient, optimized solutions to meet the complex needs of many molecular biology applications.

Our purification technology ranges all the way from spin columns to magnetic beads. Isolate pure, intact nucleic acids from a variety of biological samples with our optimized buffer systems and user friendly protocols.



Magnetic beads based purification is an extraction technique to bind and isolate DNA/RNA on to the charged surface of paramagnetic beads

Our MagNXT Nucleic acid purification kits are an extensive solution for various molecular biology applications such as sequencing or restriction digests based on paramagnetic particles help ensure the best balance of high yield and reproducibility with low non-specific binding. We offer a wide range of DNA/RNA magnetic purification kits that can serve your needs.

Purification using magnetic beads is an easy and reliable method for extraction of nucleic acids. Under optimized conditions, the nucleic acid selectively binds to the surface of magnetic beads, while other contaminants remain suspended in solution. The major advantage of this method there being, no need for centrifugation as in silica spin column technology for high yields. Separation can be done manually. Equipment necessary for this technology includes the magnetic separation racks.

## Simple 4-step protocol for Magnetic bead purification

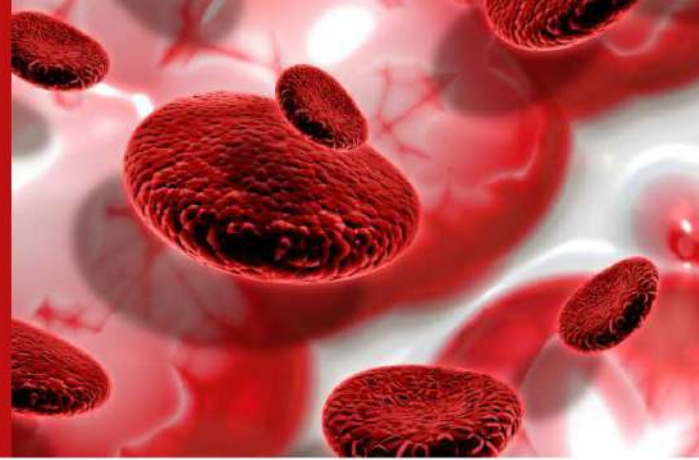


Fig 2: Magnetic bead based purification protocol – The protocol for purifying genomic DNA from various samples using "MAGNXT" purification kits using 4 simple steps- bind, wash, elute, and purify.



**Automation Friendly**





A Comprehensive Solution for Cell lysis and obtaining intact Genomic DNA with high purity & high yield.

### Features & Benefits :

**Binding Capacity :** 30-40µg genomic DNA

**Recommended input amount :** ~ 200 µl whole blood

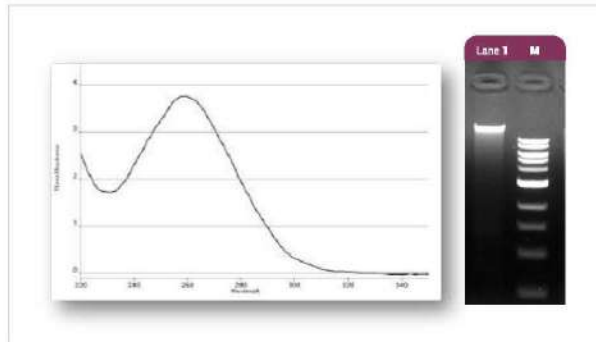
**Elution Volume :** ≥40µl (100µl is recommended)

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** Endpoint PCR, qPCR, Sequencing, etc

**Expected Yield :** Up to 10 µg (depending upon the type, quality & quantity of the starting material used)

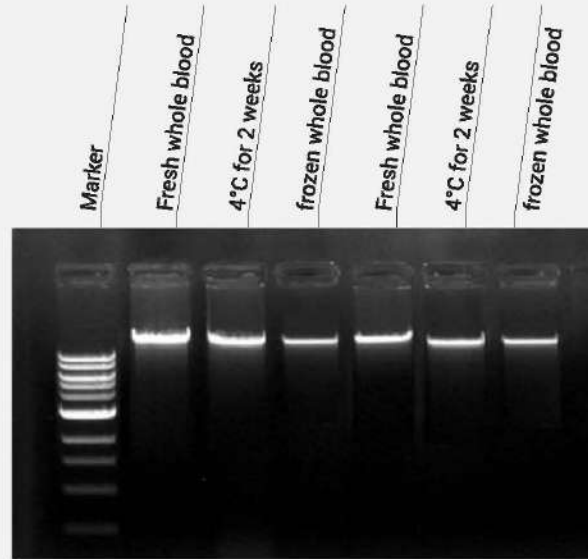
**Compatibility :** Many anticoagulants including EDTA, Heparin, and Sodium Citrate.



### Nanodrop Absorbance Spectrum

Conc.	Unit	Factor	A260	mm	260/280	260/230
187.313	ng/µl	50.00	3.7463	10	1.92	2.16

**Figure 3 :** Whole Blood genomic DNA was isolated using SpiNXT Blood DNA Extraction kit and Gel electrophoresis was performed on 0.8% agarose gel as shown in Lane 1. DNA Quality was checked on Nanodrop (Model no: DS-11 FX).



**Figure 1:** Genomic DNA obtained from 200µl human blood samples and visualized on 0.8% agarose gel.

Fresh whole blood samples were collected in an EDTA (Ethylene diamine tetra acetate) coated vial and comparison of 2 blood samples at three different storage conditions were shown :

**A.** Fresh whole blood, **B.** 4°C for 2 weeks, **C.** -20°C as frozen whole blood

The genomic DNA was isolated from all the 3 conditions shown in Lane 1 & Lane 4 as two different fresh whole blood samples, Lane 2 & Lane 5 as 4°C samples and Lane 3 & Lane 6 as frozen whole blood samples (kept at -20°C) respectively.

**M=MARKER (1KB DNA LADDER)**

An extensive solution for various applications such as sequencing or restriction digestion based on paramagnetic particles help ensure the best balance of high yield & reproducibility with low non-specific binding

### Features & Benefits :

**Recommended Input Amount :** ~ 200µl of whole blood

**Binding mechanism :** Super paramagnetic beads

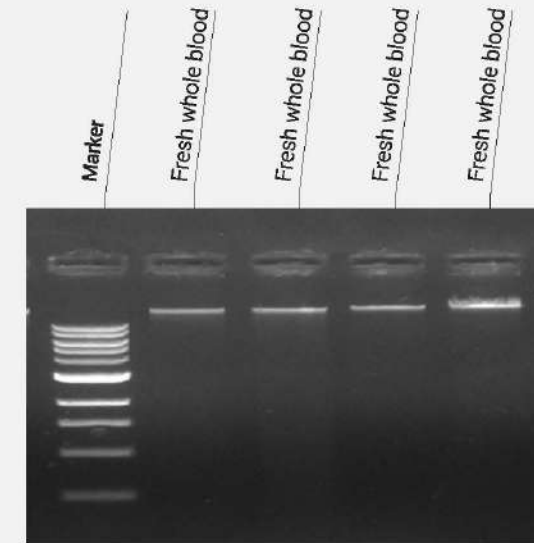
**Elution Volume :** 50-100 µl

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** Restriction endonuclease digestion, qPCR, Sequencing, autosomal STR analysis, viral DNA detection and so on.

**Expected Yield :** >7-12 µg

	Purity	Yield(µg)
Fresh whole blood	1.76	7.2
Fresh whole blood	1.85	8.4
Fresh whole blood	1.9	8.6
Fresh whole blood	1.84	9.6



**Figure 1:** Genomic DNA obtained from 200µl human whole blood samples and visualized on 0.8% agarose gel.

**Figure 2 :** The MagNXT Blood DNA Extraction kit allows better binding and washing efficiency of nucleic acid by utilizing the large surface area of the beads and generates high quality genomic DNA suitable for sensitive applications like qPCR, Sequencing, autosomal STR analysis, etc.

**MARKER (1KB DNA LADDER)**







## Blood RNA Extraction Kit

SpiNXT Blood RNA Extraction kit provides a cost effective and a convenient way for the purification of total RNA from fresh whole blood. The Kit makes use of silica based spin column technology which allows complete removal of inhibitors such as divalent cations and proteins.

### Features & Benefits :

**Recommended input amount:** 400µl of fresh Whole Blood

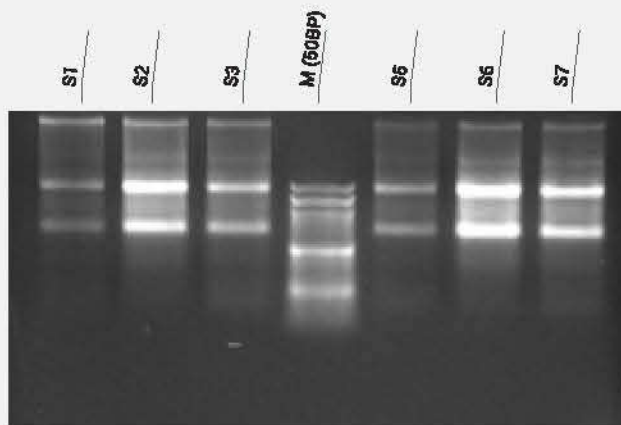
**Binding mechanism:** silica membrane spin column technology

**Elution volume:** 30µl

**Purity:** A260/280 - 2.0±0.1, A260/230 - 2.0±0.1

**Compatible downstream applications:** RT-qPCR, Northern blotting and other RNA based analysis.

**Expected yield:** 10-15 µg ( depending upon the type, quality & quantity of the starting material used)



Represented image shows RNA extraction from Whole blood using SpiNXT Blood RNA Extraction kit. The purified RNA was resolved on a fresh 1.5% gel as shown above.

MARKER=50BP PLUS DNA LADDER



## FFPE DNA Extraction Kit

SpiNXT FFPE DNA Extraction kit is solely designed for the purification of genomic DNA from formalin-fixed paraffin-embedded (FFPE) tissue sections.

- Fixing of tissues using formalin generates the cross-linking of the nucleic acids, proteins and also the process of embedding the tissue samples might lead to fragmentation of the nucleic acids over a period of time effecting yields.
- This kit enables the partial reversing of the modification caused by formalin which results in high yield with good quality.

### Features & Benefits :

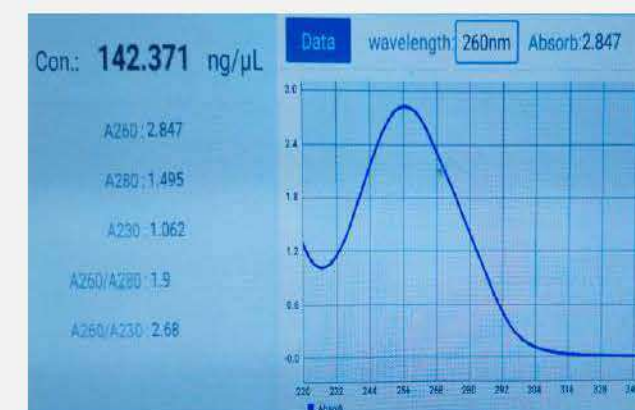
**Recommended Input Amount :** upto 6 to 8 sections of FFPE tissue (5~10µm thick)

**Elution Volume :** ≥40/50µl (100µl is recommended)

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** mutation screening, microarray analysis, sequencing, southern blotting and SNP analysis

**Expected Yield :** Depends upon the quality and quantity of the starting material used



### Nanodrop Absorbance spectrum

Represented image shows DNA isolated using SpiNXT FFPE DNA Extraction kit from Lung tissue as FFPE block.



## Tissue & Body Fluid DNA Extraction Kit



### Features & Benefits :

**Recommended Input Amount :** ~25mg tissue/200µl for body fluids

**Binding Capacity :** 30 - 40µg genomic DNA

**Elution Volume :** ≥ 40µl (100µl is recommended)

**Expected Yield :** ≥ 5µg (depending upon the type, & quantity of the starting material used).

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0 ± 0.1

**Compatible Downstream Applications :** AFLP, RFLP, Southern Blotting, Endpoint PCR, qPCR, Sequencing, etc.

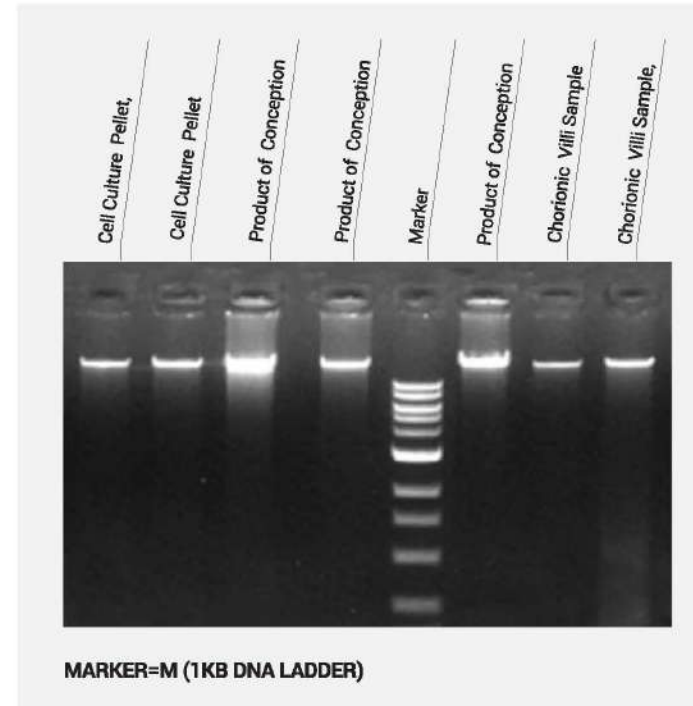
Sample type	Recommended input amount
Tissue samples	~25mg
Product of conception	~25mg
Cell culture pellet	~5×10 <sup>6</sup> cells
Chorionic Villi sample	~25mg
Amniotic fluid	15ml
Rodent tail (mouse)	1.2 cm
Rat tail	0.6 cm
Ear punches	~25mg
Urine	200µl
Saliva	200µl
Other body fluids	200µl

**TABLE 1 :**

Shows recommended starting amount of the samples used with the **SpixXT Tissue & Body Fluids DNA Extraction Kit**.

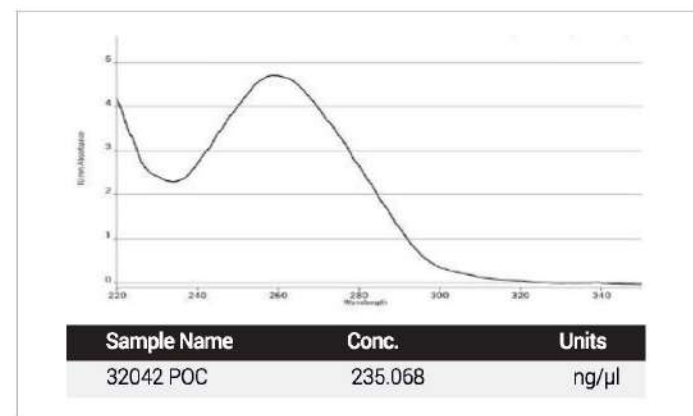
Sample#	Purity		Yield(µg)
	260/280	260/230	
Lane 1	1.87	2.09	4.4
Lane 2	1.82	1.95	4.88
Lane 3	1.75	1.97	13.4
Lane 4	1.79	2.1	5.2
Lane 5	1.77	1.95	9.4
Lane 6	1.83	2.08	4
Lane 7	1.85	1.99	4.6

The SpixXT Tissue & body fluids DNA Extraction kit generates high quality genomic DNA suitable for sensitive applications like AFLP, RFLP, Southern Blotting, endpoint PCR, qPCR, Sequencing, etc with excellent purity.



**FIGURE 1:** Representative image of genomic DNA obtained from various tissue samples using SpixXT Tissue and body fluid DNA Extraction kit.

Fresh Tissue samples were collected and washed with the help of 1XPBS and grinded with mortar pestle for efficient lyses as shown.



**NANODROP ABSORBANCE SPECTRUM**  
Genomic DNA was isolated and Gel electrophoresis was performed on 0.8% agarose gel as shown in figure 1. DNA Quality was checked on Nanodrop (Model no: DS-11 FX).

## Tissue & Body Fluid DNA Extraction Kit

The MagNXT Tissue and body fluid DNA Extraction kit utilizes large surface area of the beads and generates highly purified genomic DNA suitable for sensitive applications like qPCR, Sequencing, autosomal STR analysis, etc.

### Features & Benefits :

**Binding Capacity :** ~ 25mg tissue/200µl for body fluids

**Recommended input Amount :** ~ 200 µl whole blood

**Elution Volume :** 50-100 µl

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** Restriction endonuclease digestion, qPCR, Sequencing, autosomal STR analysis, viral DNA detection

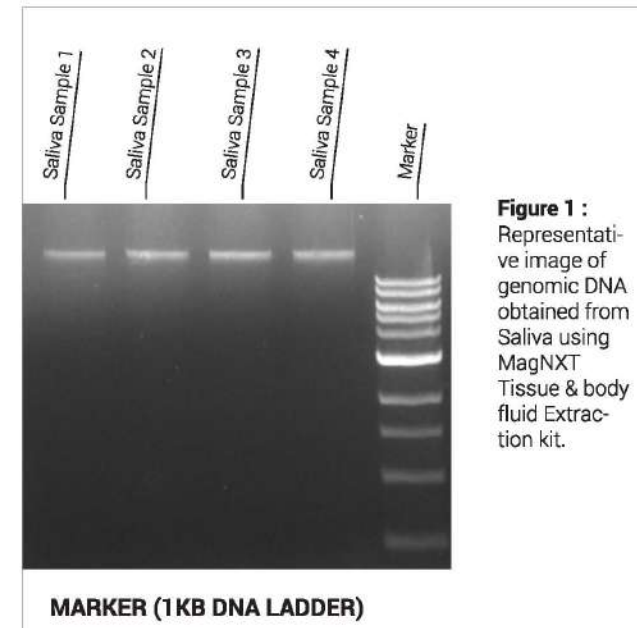
**Expected Yield :** >7 µg

**Compatibility :** Many anticoagulants including EDTA, Heparin, and Sodium Citrate

Sample type	Recommended input amount
Tissue Sample	~25mg
Product of Conception	~25mg
Cell Culture Pellet	~5×10 <sup>6</sup> cells
Chorionic Villi Sample	~25mg
Amniotic Fluid	15ml
Rodent Tail (mouse)	1.2 cm
Rat Tail	0.6 cm
Ear Punches	~25mg
Urine	200µl
Saliva	200µl
Other Body Fluids	200µl

**Table 1:**

Shows recommended starting amount of the samples used with the MagNXT Tissue & body fluid DNA Extraction kit.

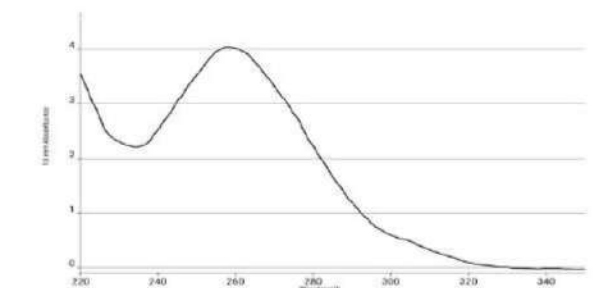


**Figure 1 :** Representative image of genomic DNA obtained from Saliva using MagNXT Tissue & body fluid Extraction kit.



**Figure 2 :** Representative image of genomic DNA obtained from various tissue samples using MagNXT Tissue & Body fluid Extraction kit. Fresh Tissue samples were collected and washed with the help of 1XPBS and grinded with mortar pestle for efficient lyses as shown. The genomic DNA was isolated from the tissue samples i.e.

**A. Product of conception, B. Chorionic Villi sample**  
**MARKER 1KB DNA LADDER**



**NANODROP ABSORBANCE SPECTRUM**  
Genomic DNA was isolated and gel electrophoresis was performed on 0.8% agarose gel as shown in Figure 1. DNA Quality was checked on Nanodrop (Model no : DS-11 FX).



# MAGNEXT | SPINEXT

## Circulating Cell-Free Extraction Kit (Part of Tissue & Body Fluid)

The Circulating cell-free DNA extraction kit enables efficient purification of circulating nucleic acids from human plasma, serum, or urine utilizing Magnetic particle/ Silica based spin column that bind DNA under optimized binding conditions.

Reliable Cell free DNA extraction solution to deliver high quality cell-free DNA from human serum, plasma and urine for research tailored to one's need

### Features & Benefits :

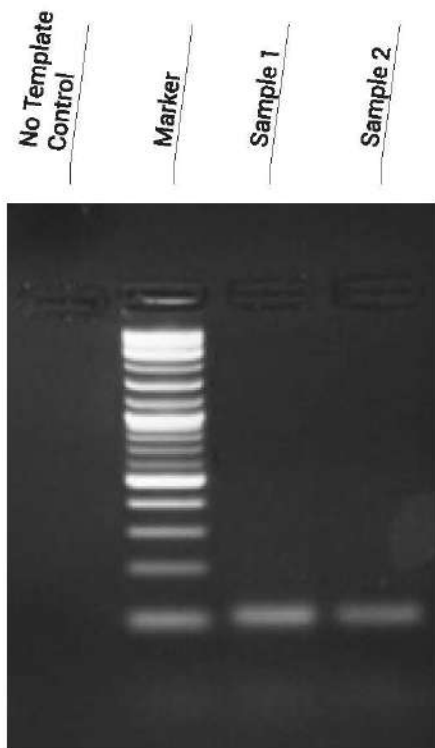
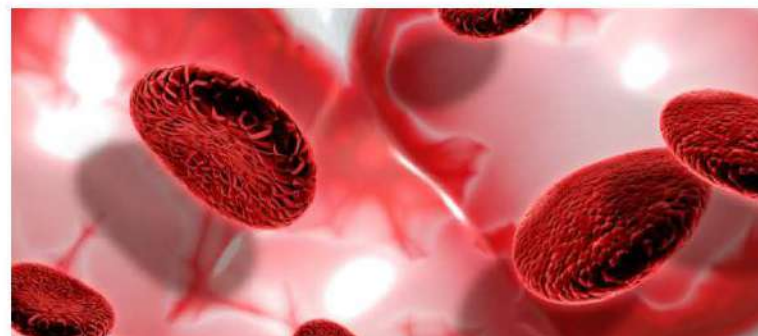
**Recommended Input Amount :** ~500µl (Depends upon the type of sample used)

**Elution Volume :** ≥40µl (100µl is recommended)

**Purity :** A260/280 – 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** PCR, qPCR, Southern blot analysis, microarrays and NGS.

**Expected Yield :** >0.6µg Depending upon the type, quality & quantity of the starting material used.



# Amplified PCR product size is 108 bp. MARKER (100bp DNA Ladder)

**FIGURE 1 :** Circulating DNA was purified from plasma of pregnant females. Representative image of PCR performed for male genes (SRY) in mother's plasma to ensure that the purified DNA is circulating cell free DNA.



# SPINEXT | MAGNEXT

## Forensic DNA Extraction Kit

A complete solution for isolation of intact and high quality genomic DNA from a large variety of challenging forensic samples

### Features & Benefits :

**Binding Capacity :** 30-40µg genomic DNA/ Magnetic particles

**Recommended input :** Cell/Tissue, whole blood, DBS, Cell Culture, Swabs, Plasma/serum, body fluids, Vaginal/Semen stains, bone, tooth, hair, chewing gum, cigarette butts & other forensic samples.

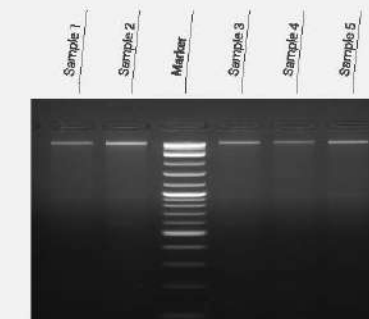
**Elution Volume :** ≥40µl (100µl is recommended)

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** Endpoint PCR, qPCR, Sequencing, autosomal STR analysis, etc

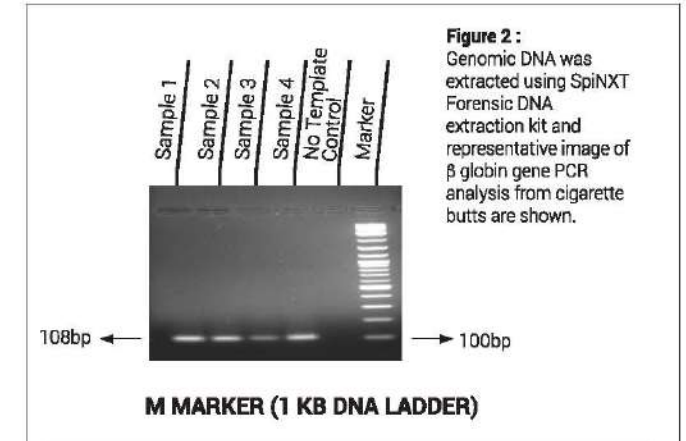
**Expected Yield :** Depending upon the type, quality & quantity of the starting material used

Sample type	Recommended input amount
Whole blood	~200µl
Dried blood spots	3x3 mm diameter punches
Cell culture pellet	~5x10 <sup>6</sup> cells
Cigarette butts	~8mm from the end
Buffy coat/ Lymphocytes	~200µl
Plasma/ serum	~200µl
Tissue samples	~25mg
Bone/tooth	Up to 100 mg



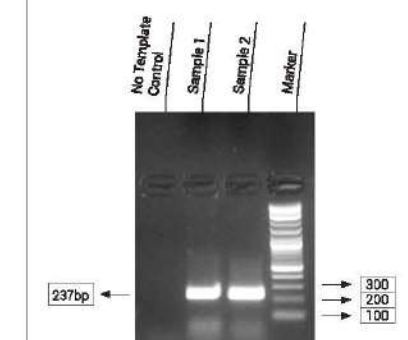
**Figure 1 :** Genomic DNA obtained from 200µl of sample and run on 0.8% agarose gel. A sterile swab was scraped 5-6 times against the inside cheek and swirled for 30-60 seconds in 1-2 ml of 1XPBS. 200µl of sample was collected and DNA was purified using SpinEXT Forensic DNA extraction kit.

MARKER (1 KB DNA LADDER)



**Figure 2 :** Genomic DNA was extracted using SpinEXT Forensic DNA extraction kit and representative image of β globin gene PCR analysis from cigarette butts are shown.

M MARKER (1 KB DNA LADDER)



**Figure 3 :** Genomic DNA was extracted from chewing gum as a challenging sample using SpinEXT Forensic DNA extraction kit and representative image of PCR analysis is shown.

M MARKER (1 KB Plus DNA LADDER)



## Saliva DNA Extraction Kit

Saliva offers an attractive alternative to blood or tissue for the isolation of human DNA samples for use in diagnostic applications.

- Efficiently isolates intact high quality, pure genomic DNA with non-invasive and painless sample input.
- It allows fast and easy processing using a rapid spin-column format and is completely compatible with preserved saliva samples, fresh saliva samples as well as Buccal swabs.

### Features & Benefits :

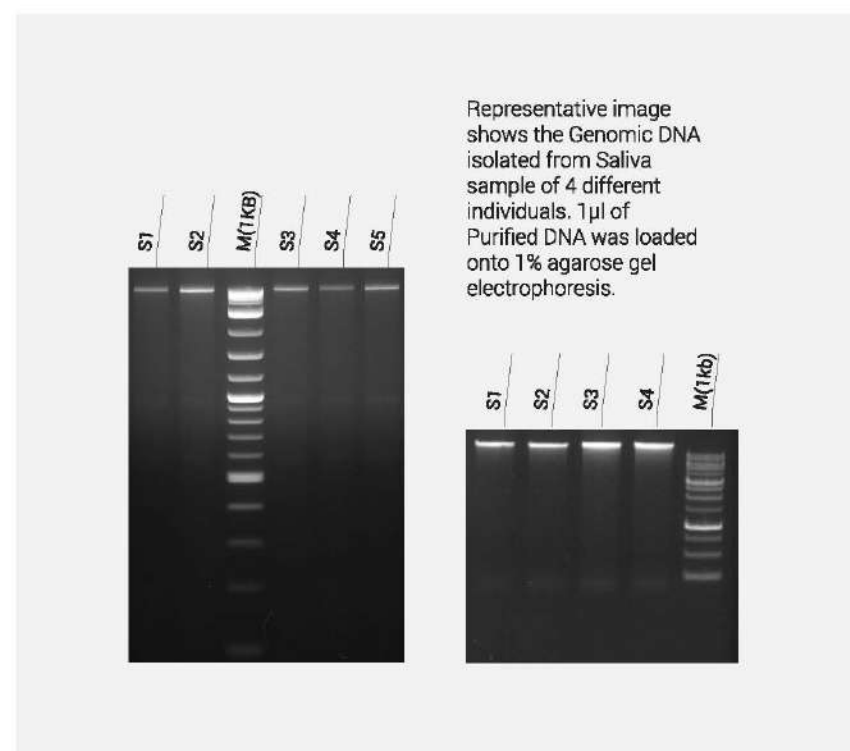
**Recommended Input Amount :** 200µl of saliva sample

**Elution Volume :** ≥40/50µl (100µl is recommended)

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** PCR, Southern Blot analysis, sequencing and microarray analysis

**Expected Yield :** >3µg (depending upon the quality and quantity of the starting material used)



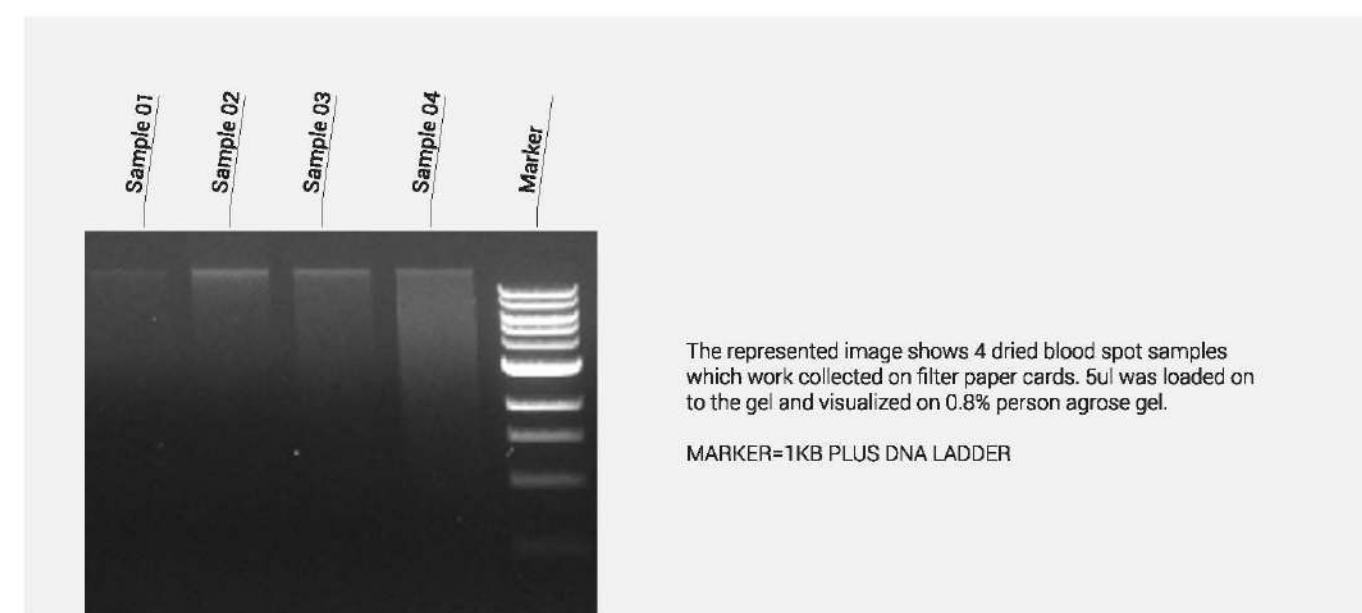
## DBS DNA Extraction Kit

A comprehensive solution for rapid extraction of genomic DNA from Dried Blood Spots

The DBS DNA Extraction kit provides a fast and simple silica column-based/ magnetic bead particles solution for challenging samples like dried blood spots. It allows for the isolation of DNA from the blood of various mammalian species, including humans. The blood should be spotted and dried on suitable filter paper or specimen collection cards. The purified DNA is of high quality and is completely compatible with downstream applications including PCR, qPCR and more.

### Features & Benefits :

	SpiNXT	MagNXT
<b>Recommended Input Amount :</b>	3 x 3 mm diameter punches	
<b>Elution Volume :</b>	≥40/50µl (100µl is recommended)	
<b>Purity :</b>	A260/280 - 1.8±0.1, A260/230 - 2.0±0.1	
<b>Compatible Downstream Applications :</b>	Microarray analysis, STR analysis, restriction enzyme digestion & Southern blotting	
<b>Expected Yield :</b>	>600ng or 0.6 µg	>800ng or 0.8 µg





# MAG RNA-II

## Viral RNA Extraction Kit

The MagRNA Viral RNA-II Extraction kit is a comprehensive solution for extracting intact and pure viral nucleic acid from Human plasma, serum, Nasopharyngeal swabs and Bronchoalveolar Lavage

### Features & Benefits :

**Recommended Input Amount :** 200µl of the sample

**Binding Technology :** Super paramagnetic beads

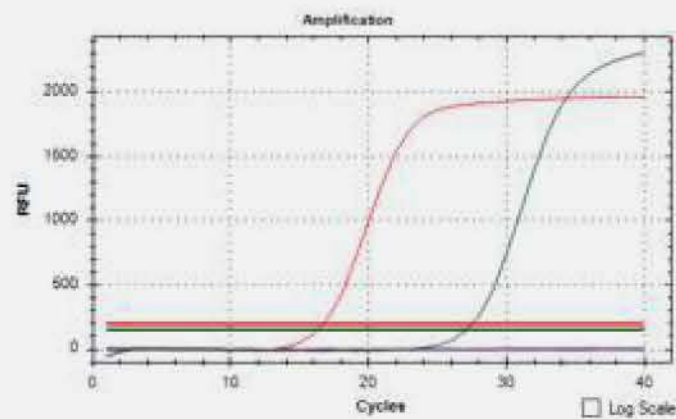
**Elution Volume :** ≥40/50µl (100µl is recommended)

**Purity :** A260/280 – 2.0±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** restriction endonuclease digestion, qPCR, Sequencing, viral DNA detection and so on

**Expected Yield :** 4-8µg (depending upon the viral load, quantity & quality of the sample)

- This system utilizes technology paramagnetic beads allowing recovery of 95-100% viral RNA.
- Works well with minimal sample volume of 200 µl and elution of high yield/quality of RNA in 30-50 µl.
- Carrier RNA included enhancing the quality of eluted Viral RNA.
- Extraction time of ~ 30-35 minutes.
- Plastic ware for specific automation instruments also available.
- Compatible with Manual and multiple automated systems such as MGISP-100B, MGISP-960, Kingfisher Flex, ILS GENFast Automated System, Agilent Bravo, Hamilton Automated Liquid Handlers, Tecan Freedom Evo100.



Viral RNA was purified using MagRNA-II Viral RNA Extraction kit. Represented image shows RT-PCR amplification curve of extracted Chikungunya RNA showing target gene and internal control.

Target gene: Red color  
Internal control: Green color

# SPIN RNA

## Viral RNA Extraction Kit

The SpinRNA Viral RNA Extraction kit is a comprehensive solution for extracting intact and pure viral nucleic acid from Human plasma, serum, Nasopharyngeal swabs and Bronchoalveolar Lavage

### Features & Benefits :

**Recommended Input Amount :** 200µl of the sample

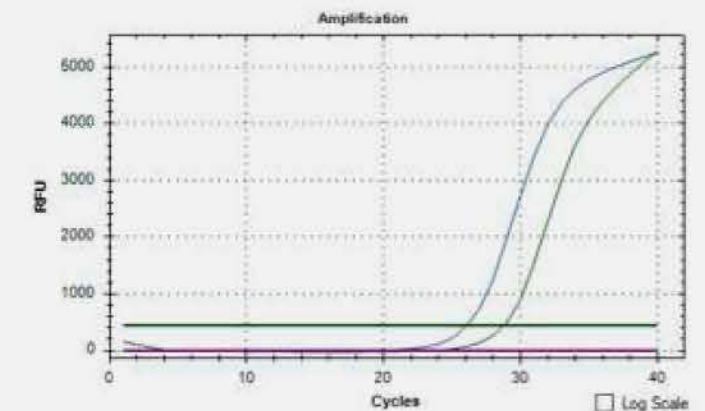
**Binding Technology :** Spin column

**Elution Volume :** ≥40/50µl (100µl is recommended)

**Purity :** A260/280 – 2.0±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** restriction endonuclease digestion, qPCR, Sequencing, viral DNA detection and so on

**Expected Yield :** 3-6µg (depending upon the viral load, quantity & quality of the sample)



Viral RNA was purified using Spin RNA Extraction kit. Represented image shows RT-PCR amplification curve of extracted HCV RNA showing target gene and internal control

Target gene: Blue color  
Internal control: Green color



# SPiNXT Gel Extraction Kit

Designed for rapid and efficient purification of DNA fragments from TAE agarose gels of various percentages and ideal for use in all conventional molecular biology procedures with minimal handson time

SpINXT Gel extraction kit uses proprietary chemistry for rapid and reliable recovery of concentrated high-quality double stranded DNA from agarose gels with yields exceeding 80-85%. DNA is suitable for ligations, PCR, sequencing, restriction digestion, or various molecular reactions. In addition, this kit can be also used to recover DNA directly from enzymatic reactions such as PCR and enzyme digestion reactions.

DNA Sample Type	Double-stranded DNA from agarose gels
Sample material	Up to 200mg
Binding capacity	15-20µg
DNA size range	70bp-10kb
Typical recovery	70-90% (70bp-10kb)
Minimum elution volume	30µl
Maximum elution volume	40µl
Purity	A 260/280 >1.8

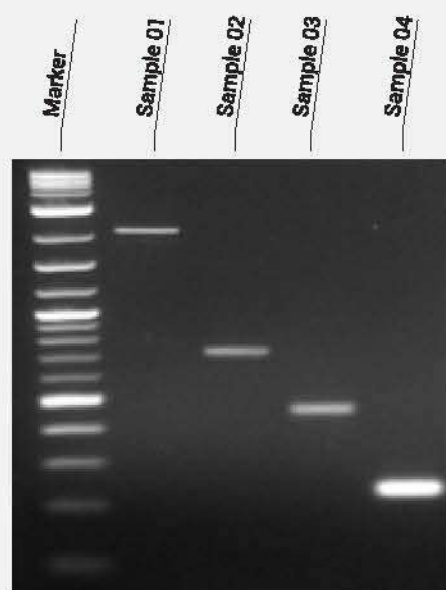


Figure 1: A range of DNA fragments from 2100bp to 228 bp was prepared and was resolved on a 2% gel. Each fragment was manually excised from the agarose gel and processed using the SpINXT Gel extraction kit. The one-half elution of each fragment was resolved on a fresh 2% gel as shown above.

MARKER=1KB PLUS DNA LADDER



# SPiNXT | MAGNXT Plasmid DNA Extraction Kit

- Designed to provide reliable isolation of high quality plasmid DNA.
- The optimized column design helps prevent buffer retention & salt carry over.
- Are designed with advanced silica based spin column & Magnetic beads technology.

## Features & Benefits :

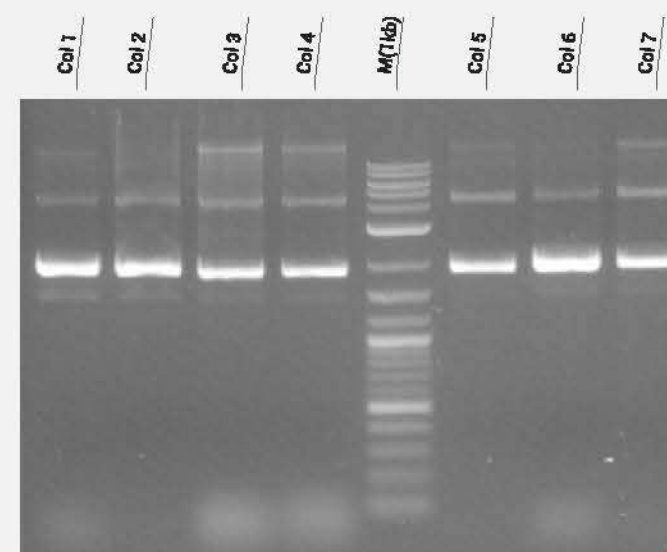
**Recommended Input Amount :** 1-5 ml approx.

**Elution Volume :** ≥40/50µl (100µl is recommended)

**Purity :** A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** Transformation, transfection, DNA Sequencing PCR

**Expected Yield :** Up to 30µg (depends upon culture volume, growth conditions, host strain and plasmid copy number)



7 different colonies were picked up from the single plate of pure DH5λ strain. Plasmid DNA was isolated and checked on 0.8% agarose gel electrophoresis.





## Bacterial DNA/RNA Extraction Kit

A Comprehensive solution to isolate high quality DNA from Gram negative (-) and Gram positive (+) bacteria. It allows purification from  $2 \times 10^9$  viable bacterial cells. Purification is based on silica membrane based spin columns as the separation matrix.

### Bacterial DNA

#### Features & Benefits :

**Recommended Input Amount :**  
~1.2ml of bacterial culture

**Binding Mechanism :**  
Silica membrane spin column technology

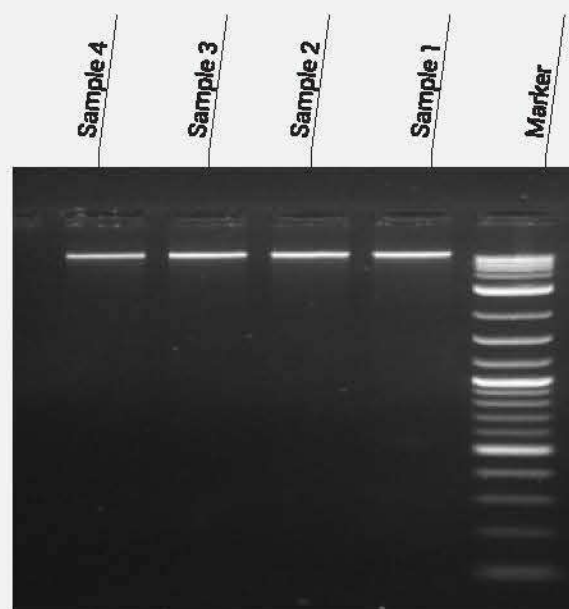
**Binding Capacity :**  
20-30µg genomic DNA

**Elution Volume :**  
≥40µl (100µl is recommended)

**Purity :**  
A260/280 - 1.8±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :**  
PCR, Cloning, Next generation sequencing etc.

**Expected Yield :**  
depending upon the type, quality & quantity of the starting material used.



**FIGURE 1:**  
Genomic DNA obtained from 1.2ml of Dh5α strain (*E. coli*) Bacterial culture grown in LB Broth. 2µl of the purified gDNA was loaded on to the gel and visualized on 0.8% agarose gel.

MARKER (1 KB DNA LADDER)

SAMPLE#	Purity		Yield(µg)
	260/280	260/230	
Lane 1	1.82	2.05	4.8
Lane 2	1.85	2.01	5.2
Lane 3	1.8	2.00	5.8
Lane 4	1.86	2.08	8.2

A comprehensive solution to isolate high quality RNA from Gram negative (-) and Gram positive (+) bacteria. It allows purification from  $2 \times 10^9$  viable bacterial cells.

### Bacterial RNA

#### Features & Benefits :

**Recommended Input Amount :** ~1.2ml of bacterial culture

**Binding Mechanism :** Silica membrane spin column technology

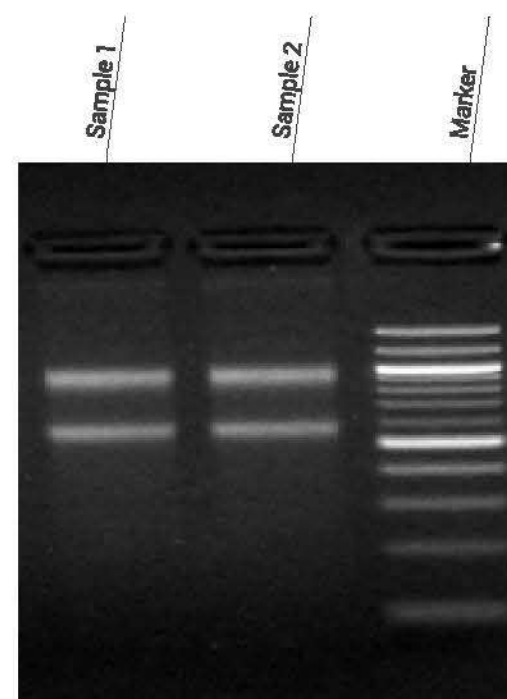
**Binding Capacity :** 15-20µg RNA

**Elution Volume :** ≥40µl (100µl is recommended)

**Purity :** A260/280 - 2±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** Reverse Transcriptase PCR (RT-PCR), Northern Blotting, cDNA Library construction or other RNA based analysis etc.

**Expected Yield :** Up to 5µg ( depending upon the type, quality & quantity of the starting material used)



**FIGURE 1:**  
RNA isolated from 1.2ml of Dh5α strain (*E. coli*) bacterial culture grown in LB Broth. 2µl of the purified RNA and visualized on 2% agarose gel.

MARKER (1 KB DNA LADDER)

The SpiNXT Bacterial RNA Extraction kit generates high quality RNA suitable for sensitive applications like qPCR and cDNA Library construction with excellent purity.

Sample	Purity		Yield(µg)
	260/280	260/230	
Sample 1	1.95	2.05	210ng/µl
Sample 2	1.97	2.09	230ng/µl



## Bacterial DNA

MagnXT Bacterial RNA Extraction Kit utilizes paramagnetic beads to isolate RNA from both Gram negative (-) and Gram positive (+) bacterial cells; resulting in high quantity and quality DNA usable in various downstream applications.

### Features & Benefits :

**Recommended Input Amount :**  
~ 1.2ml of bacterial culture

**Binding mechanism :**  
Super paramagnetic beads

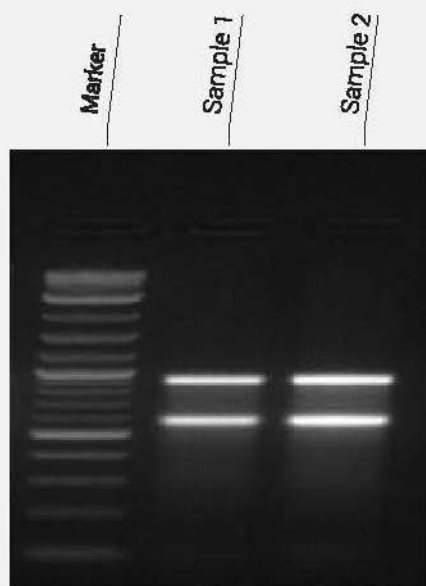
**Elution Volume :**  
≥40µl (100µl is recommended)

**Purity :**  
A260/280 - 2±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :**  
Reverse Transcriptase PCR (RT-PCR), Northern Blotting, cDNA Library Construction or other RNA based analysis etc.

**Expected Yield :** >7µg

SAMPLE#	Purity		Yield(µg)
	260/280	260/230	
Sample 1	1.99	2.03	8
Sample 2	2.03	2.0	9.2



**Figure 1:**

RNA isolated from 1.2ml of Dh5a strain (*E. coli*) Bacterial culture grown in LB Broth. 2µl of the purified RNA and visualized on 2% agarose gel.

## Bacterial RNA

MagnXT Bacterial RNA Extraction Kit utilizes paramagnetic beads to isolate (gDNA) from both Gram negative (-) and Gram positive (+) bacterial cells; resulting in high quantity and quality DNA usable in various downstream applications.

### Features & Benefits :

**Recommended Input Amount :** ~1.2ml of bacterial culture

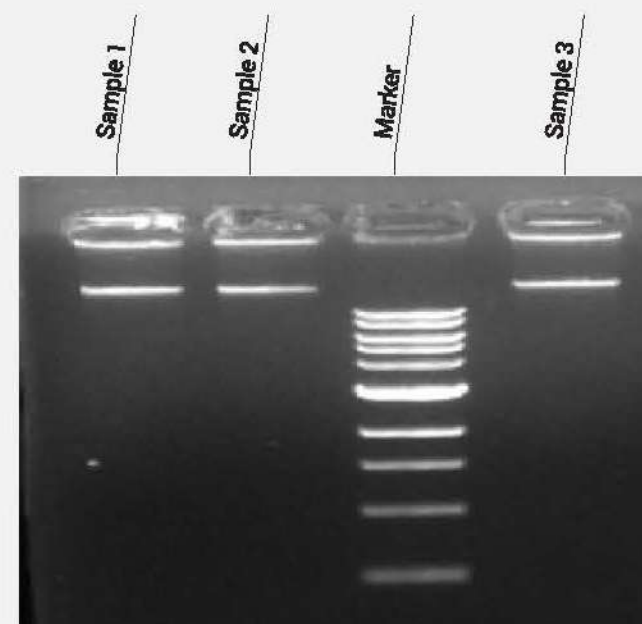
**Binding Mechanism :** super paramagnetic beads

**Elution Volume :** ≥40µl (100µl is recommended)

**Purity :** A260/280 - 2±0.1, A260/230 - 2.0±0.1

**Compatible Downstream Applications :** PCR, Cloning, Next generation sequencing etc

**Expected Yield :** >5 µg ( depending upon the type, quality & quantity of the starting material used)



**FIGURE 1:**  
Genomic DNA obtained from 1.2ml of Dh5a strain (*E. coli*) Bacterial culture grown in LB Broth. 2µl of the purified gDNA was loaded on to the gel and visualized on 0.8% agarose gel.

MARKER (1KB DNA LADDER)





# MAGNET

## Plant DNA/RNA Extraction Kit

A magnetic bead based purification format which allows easy scaling of the number of samples processed for reproducible and more consistent yield as compared to traditional CTAB method.

### Plant DNA

#### Features & Benefits :

**Recommended Input Amount :** ~10-50mg tissue sample

**Binding Mechanism :** Super paramagnetic Beads

**Elution Volume :** 50-100  $\mu$ l

**Purity :** A260/280 - 1.8 $\pm$ 0.1

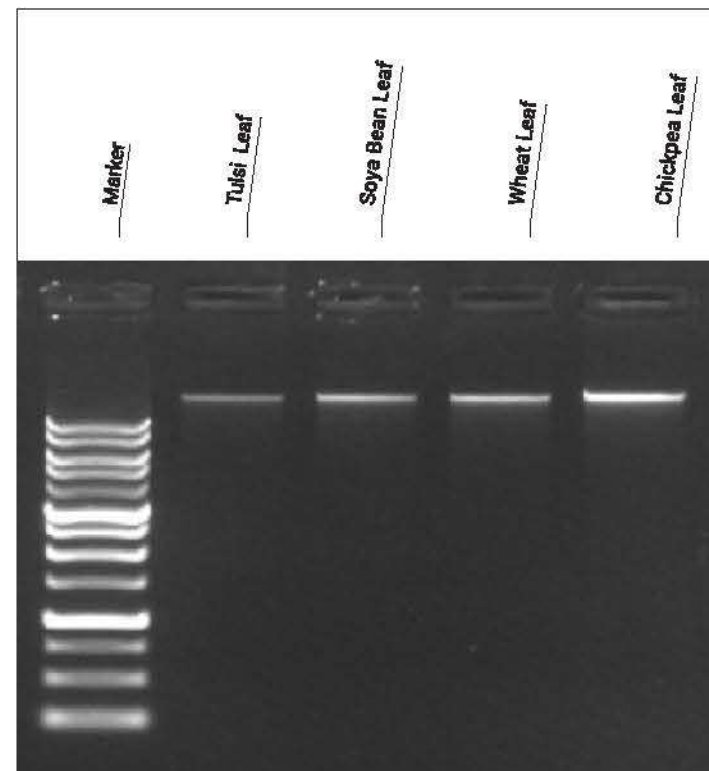
**Compatible Downstream Applications :** PCR, qPCR, Sequencing

**Expected Yield :**  $\geq$  7 $\mu$ g

**Versatile :** Suitable for most plant types and parts

**FIGURE 1:** Genomic DNA was obtained from 50mg plant tissues from various sources. 1 $\mu$ l of the extracted DNA was loaded and visualized on 0.8% agarose gel.

MARKER 1KB DNA LADDER



Sample Name	Concentration (ng/ $\mu$ l)	260/280	Yield ( $\mu$ g)
Tulsi Leaf	180	1.79	7.2
Soya Bean Leaf	255	1.82	10.2
Wheat Leaf	262	1.85	10.4
Chickpea Leaf	290	1.86	11.6

A magnetic bead based purification format which allows easy scaling of the number of samples processed using a magnetic stand.

### Plant RNA

#### Features & Benefits :

**Recommended Input Amount :** ~10-50mg tissue sample

**Binding Mechanism :** Super paramagnetic beads

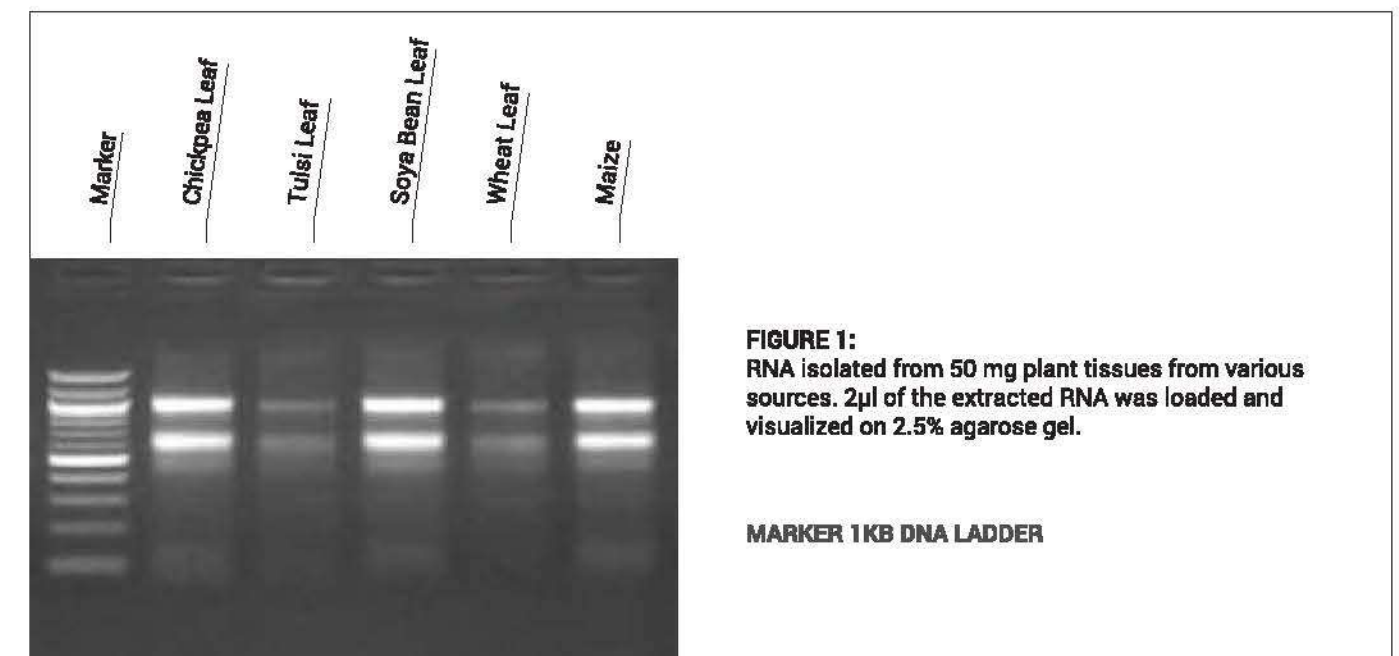
**Elution Volume :** 50-100  $\mu$ l

**Purity :** A260/280 - 2.0 $\pm$ 0.1, A260/230 - 2.0 $\pm$ 0.1

**Compatible Downstream Applications :** RT-PCR, RT-qPCR, and other enzymatic reactions

**Expected Yield :**  $\geq$  7 $\mu$ g

**Versatile:** Suitable for most plant types and parts



**FIGURE 1:** RNA isolated from 50 mg plant tissues from various sources. 2 $\mu$ l of the extracted RNA was loaded and visualized on 2.5% agarose gel.

MARKER 1KB DNA LADDER

Sample Name	Concentration (ng/ $\mu$ l)	260/280	260/230	Yield ( $\mu$ g)
Chick Pea Leaf	310	2.05	2.11	12.4
Tulsi Leaf	120	1.97	2.08	4.8
Soya Bean Leaf	295	1.92	2.15	11.8
Wheat Leaf	115	1.90	2.19	4.6
Maize	298	2.07	2.05	11.9





## Plant DNA/RNA Extraction Kit

The SpiNXT Plant DNA Extraction kit is designed to purify high-quality total DNA in less than an hour with reliable performance in downstream applications

### Plant DNA

It is designed for purifying plant DNA using a centrifuge in ~40 minutes with a variety of samples To obtain high yield of DNA, fresh plant samples should be used immediately after collection and should be stored in low temperature conditions to prevent the degradation of DNA.

#### Features & Benefits :

**Recommended Input Amount :**  
~10-50mg tissue

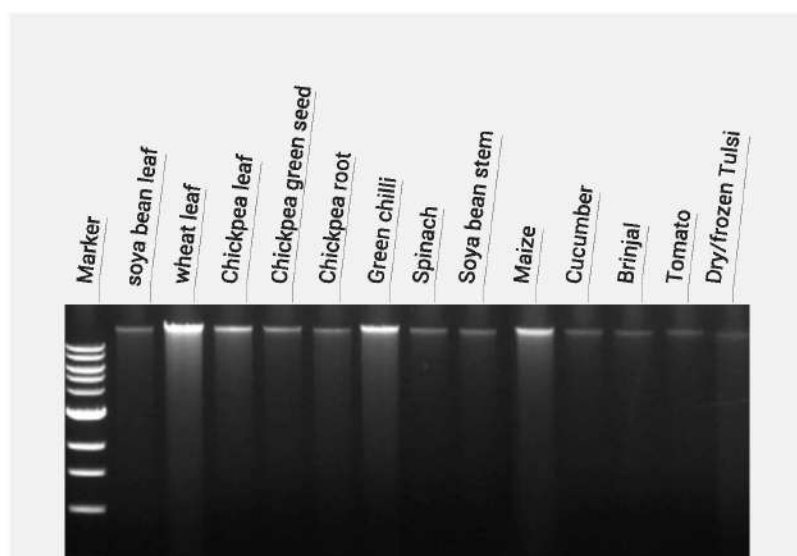
**Binding Capacity :**  
30-40µg genomic DNA

**Elution Volume :**  
≥40µl (100µl is recommended)

**Purity :**  
A260/280 -1.8±0.1

**Compatible Downstream Applications :**  
PCR, qPCR, Sequencing, etc.

**Expected Yield :**  
≥5µg (depending upon the type, quality & quantity of the starting material used).



**FIGURE 1:**  
Genomic DNA was obtained from 50mg plant tissues from various sources. 1µl of the extracted DNA was loaded and visualized on 0.8% agarose gel.

MARKER (1KB DNA LADDER)

The SpiNXT Plant RNA Extraction Kit is designed to purify high-quality total RNA in less than an hour with reliable performance in downstream applications.

### Plant RNA

It is designed for purifying plant RNA using a centrifuge in ~40 minutes with a variety of samples to obtain high yield of RNA, fresh plant samples should be used immediately after collection and should be stored in low temperature conditions to prevent the degradation of RNA.

#### Features & Benefits :

**Recommended Input Amount :**  
~10-50mg tissue

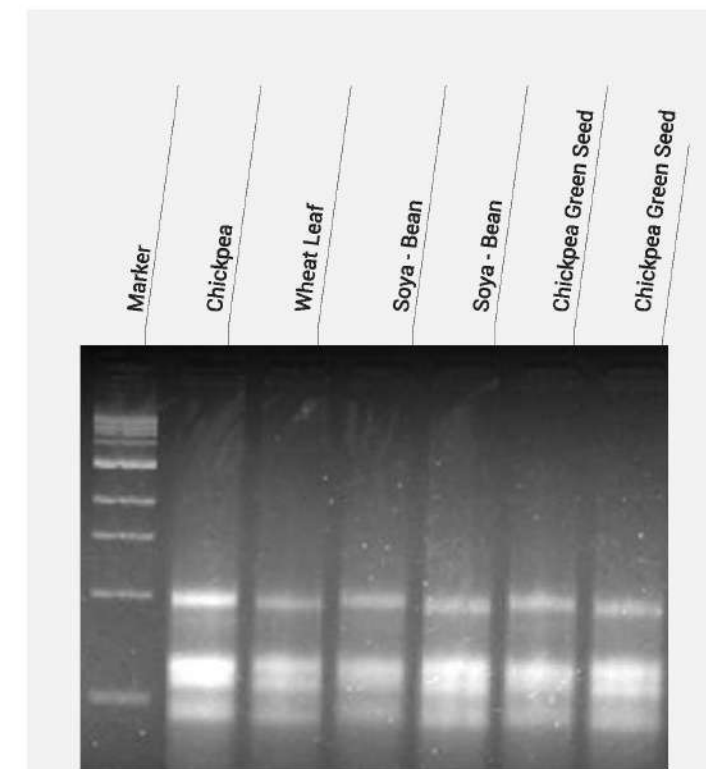
**Binding Capacity :**  
15-30µg RNA

**Elution Volume :**  
≥40µl (100µl is recommended)

**Purity :**  
A260/280 :-2±0.1

**Compatible Downstream Applications :**  
Northern Blotting, expression analysis, endpoint PCR, qRT-PCR, Sequencing, other RNA based analysis etc.

**Expected Yield :**  
≥5µg (depending upon the type, quality & quantity of the starting material used).



**FIGURE 1:**  
RNA isolated from 50 mg plant tissues from various sources. 2µl of the extracted RNA was loaded and visualized on 2.5% agarose gel.

MARKER (1KB DNA LADDER)

Sample Name	Concentration (ng/µl)	260/280	260/230	Yield (µg)
Cicer Arietinum (Chickpea)	279	2.04	2.20	27.9
Triticum (Wheat) Leaf	161	2.04	2.17	16.1
Glycine Max (Soya-bean)	127	2.02	2.19	12.7
Glycine Max (Soya-bean)	243	1.94	2.2	24.3
Cicer Arietinum (Chickpea) Green Seed	179	1.92	2.1	17.9
Cicer Arietinum (Chickpea) Green Seed	220	1.93	2.18	22



## Ordering Information

Commercial Name	Cat No.	Qty	Storage & Validity
Rapi-X96	G2M18001	1	Room Temperature,  12 Months
Rapi-X16	G2M18002	1	
SpinRNA Viral RNA Extraction Kit	G2M080820	250Rxn	
MagRNA-II Viral RNA Extraction Kit	G2M030420	500Rxn	
MagRNA-II Viral RNA Extraction Kit	G2M030520-PF	480Rxn	
MagRNA-II Viral RNA Extraction Kit	G2M030620	960Rxn	
SpiNXT Blood DNA Extraction Kit	G2M181820	50Rxn	
SpiNXT Blood DNA Extraction Kit	G2M181720	250Rxn	
SpiNXT Blood RNA Extraction Kit	G2M373721	50Rxn	
SpiNXT Blood RNA Extraction Kit	G2M373821	250Rxn	
MagNXT Blood DNA Extraction Kit	G2M181921	50Rxn	
MagNXT Blood DNA Extraction Kit	G2M182021	200Rxn	
MagNXT Blood DNA Extraction Kit	G2M182121	500Rxn	
MagNXT Blood DNA Extraction Kit	G2M182121-PF	480Rxn	
SpiNXT Bacterial DNA Extraction Kit	G2M141421	50Rxn	
SpiNXT Bacterial DNA Extraction Kit	G2M141521	250Rxn	
SpiNXT Bacterial RNA Extraction Kit	G2M121220	50Rxn	
SpiNXT Bacterial RNA Extraction Kit	G2M121320	250Rxn	
MagNXT Bacterial DNA Extraction Kit	G2M343421	50Rxn	
MagNXT Bacterial DNA Extraction Kit	G2M343521	250Rxn	
MagNXT Bacterial DNA Extraction Kit	G2M343621-PF	480Rxn	
MagNXT Bacterial RNA Extraction Kit	G2M282821	50Rxn	
MagNXT Bacterial RNA Extraction Kit	G2M282921	250Rxn	
MagNXT Bacterial RNA Extraction Kit	G2M283021-PF	480Rxn	
SpiNXT Fecal DNA Extraction Kit	G2M323421	50Rxn	
SpiNXT Fecal DNA Extraction Kit	G2M323521	250Rxn	
SpiNXT FFPE DNA Extraction Kit	G2M232121	50Rxn	
SpiNXT FFPE DNA Extraction Kit	G2M232221	250Rxn	
SpiNXT Tissue & body fluids DNA Extraction Kit	G2M131420	50Rxn	
SpiNXT Tissue & body fluids DNA Extraction Kit	G2M131320	250Rxn	
MagNXT Tissue & body fluids DNA Extraction Kit	G2M212121	50Rxn	
MagNXT Tissue & body fluids DNA Extraction Kit	G2M212021	250Rxn	
MagNXT Tissue & body fluids DNA Extraction Kit	G2M211921	500Rxn	
MagNXT Tissue & body fluids DNA Extraction Kit	G2M211921-PF	480Rxn	
SpiNXT Cell free DNA Extraction Kit	G2M303021	50Rxn	
SpiNXT Cell free DNA Extraction Kit	G2M303121	250Rxn	
MagNXT Cell free DNA Extraction Kit	G2M313121	50Rxn	
MagNXT Cell free DNA Extraction Kit	G2M313221	250Rxn	
MagNXT Cell free DNA Extraction Kit	G2M313321-PF	480Rxn	
SpiNXT Saliva DNA Extraction Kit	G2M171721	50Rxn	
SpiNXT Saliva DNA Extraction Kit	G2M171821	250Rxn	
MagNXT Saliva DNA Extraction Kit	G2M191821	50Rxn	
MagNXT Saliva DNA Extraction Kit	G2M191921	250Rxn	
MagNXT Saliva DNA Extraction Kit	G2M192021-PF	480Rxn	
SpiNXT Forensic DNA Extraction Kit	G2M242421	50Rxn	
SpiNXT Forensic DNA Extraction Kit	G2M242521	250Rxn	
MagNXT Forensic DNA Extraction Kit	G2M242021	50Rxn	
MagNXT Forensic DNA Extraction Kit	G2M241921	250Rxn	
MagNXT Forensic DNA Extraction Kit	G2M241821-PF	480Rxn	
SpiNXT DBS DNA Extraction Kit	G2M232421	50Rxn	
SpiNXT DBS DNA Extraction Kit	G2M232321	250Rxn	
MagNXT DBS DNA Extraction Kit	G2M271921	50Rxn	
MagNXT DBS DNA Extraction Kit	G2M272021	250Rxn	
MagNXT DBS DNA Extraction Kit	G2M272121-PF	480Rxn	



### Genes2Me Pvt. Ltd.

1105, 11th Floor, Tower B, SAS Tower, Medicity,  
Sector - 38, Gurgaon - 122 001, Haryana, India  
Tel : + 91 18001 214030 / + 91 88000 23600  
E-mail : contact@genes2me.com  
www.genes2me.com



All products listed in the catalogue are the products of Genes2Me Private Limited. Apart from that, all other product names, trademarks and logos wherever used in the catalogue are the property of their respective owners. For more information, visit [www.genes2me.com](http://www.genes2me.com).