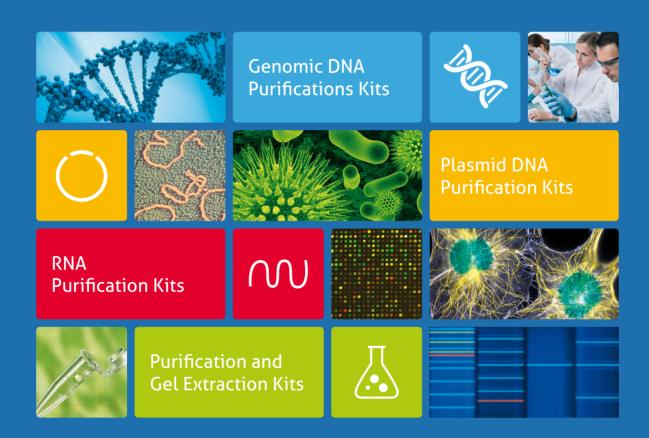
### **DANAGENE**

### **NUCLEIC ACID PURIFICATIONS KITS**





#### DanaGen-BioTed S.L.

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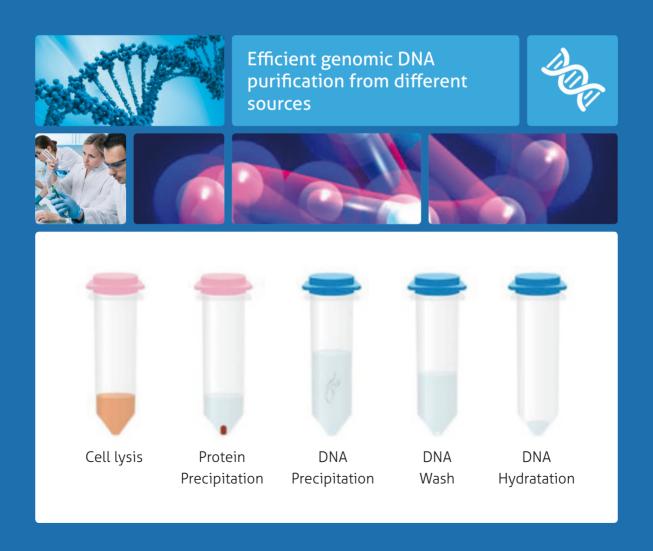
### DANAGENE - NUCLEIC ACID PURIFICATIONS KITS

#### **NUCLEIC ACID PURIFICATION PLASMID** PCR READY **GENOMIC DNA VIRAL DNA TOTAL** DNA **PURIFICATION AND RNA RNA FRAGMENTS GENOMIC DNA BLOOD MINIPREP SERUM AND TISSUES AND FROM PCR FROM TISSUES** DNA **PLASMA CELLS RNA AND CELLS TISSUES AND MIDIPREP** FROM GELS **PLANT RNA CELLS DNA PLANT MAXIPREP ALL SIZES** DNA CLEANUP DNA **OF RNA AND** CONCENTRATION **SALIVA MICRO RNA** DNA **FOOD-STOOL GENOMIC DNA** AND TOTAL RNA DNA **FFPE TISSUE DNA**

DanaGen-BioTed nucleic acid isolation products are optimized for provide maximum yield, purity, and integrity from virtually any sample type Discover our column-based DANAGENE kits, and buffer-based kits for scalable purification.

- Isolate nucleic acids with superior purity and yields.
- Purified nucleic acids are ready to use in common downstream applications.
- DANAGENE kits have been extensively tested on a wide variety of sample types and include specialized protocols.

### Genomic DNA Purifications Kits



# 1. Convenient and scalable purification procedures using buffers.

#### **DANAGENE Blood DNA Kit**

- Rapidly purify RNA-free gDNA from whole blood or mammalian bone marrow.
- This method can be scaled allowing to process large amounts of samples simultaneously (100  $\mu$ l 10 ml).
- Safe method, as it removes completely the need of using toxic reagents.
- Typical yield of 35  $\mu$ g/ml of blood with an A260/280 of 1.7-1.9.

#### **DANAGENE Genomic DNA Kit**

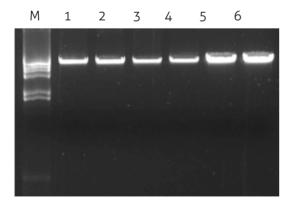
- Rapidly purify RNA-free gDNA from a wide variety of tissues or cells.
- This method can be scaled allowing to process large amounts of samples simultaneously.
- Safe method, as it removes completely the need of using toxic reagents.
- A high quality DNA is obtained, with an A260/280 of 1.7 1.9 ratio.

#### **DANAGENE Plant DNA Kit**

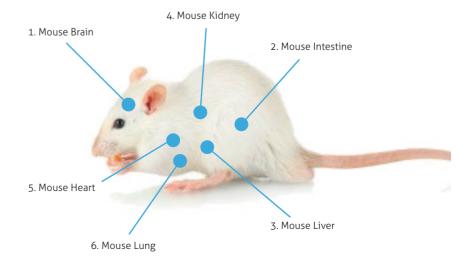
- Rapidly purify RNA-free gDNA from a wide variety of plant tissues or plant cells.
- · It contains a PVP solution that allows working with plants with a high content polyssacharides and polyphenols compounds.
- This method can be scaled allowing to process large amounts of samples simultaneously.
- Safe method, as it removes completely the need of using toxic reagents.

#### **DANAGENE Saliva DNA Kit**

- Kit designed for an efficient and fast purification of highly pure genomic DNA from a wide variety of saliva samples including:
  - 1. Saliva samples.
  - 2. Buccal cell samples via mouth swabs from DANASALIVA Swabs. Ref.0602.42
  - 3. Saliva samples via DANASALIVA Sample Collection Kit. Ref.0603.43
  - 4. Saliva samples via ORAGENE self collection kits (DNAGenotek).

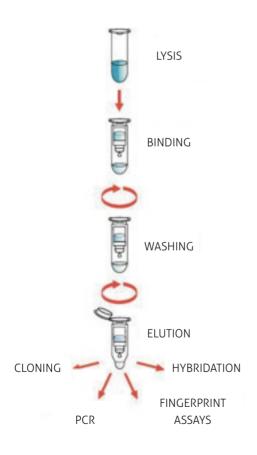


**Genomic DNA analysis in agarose gel.**Prepared with DANAGENE Genomic DNA Kit.



PRODUCT	Preps	Reference
DANAGENE Blood DNA Kit	100 ml	0601
	200 ml	0602
DANAGENE Genomic DNA Kit (RNase and Proteinase K included)	50	0603.1
DANAGENE Genomic DNA Kit (RNase and Proteinase K included)	200	0603.2
DANAGENE Genomic DNA Kit (RNase and Proteinase K not included)	200	0603.3
DANAGENE Plant DNA Kit (RNase included)	50	0604.1
	200	0604.2
DANAGENE Saliva DNA Kit (RNase and Proteinase K included)	50	0603.4
	160	0603.41

# 2. Spin columns based on silica membrane technology.



#### DANAGENE SPIN Blood DNA Kit

- · Rapid purification of highly pure genomic DNA from whole blood, serum, plama and body fluids.
- Sample size: 300 µl whole blood, serum, plasma and body
- No organic extraction or alcohol precipitation.
- Complete removal of contaminants and inhibitors for reliable downstream applications.
- Typical yield: 6- 9 µg genomic DNA.
- · High quality DNA obtained that can be directly used in PCR, Southern, any enzymatic reaction, cloning, etc.

#### **DANAGENE SPIN Genomic DNA Kit**

- Rapidly purify RNA-free gDNA from a wide variety of tissues or cells.
- Typical yield: 20- 35 µg genomic DNA.
- Binding capacity: 60 µg.
- Sample size: 200-300 µl whole blood, 200 µl buffy coat; 25 mg tissue; 10<sup>2</sup>- 10<sup>7</sup> cells; 0,5- 1.2 cm mouse tail; 10<sup>8</sup> yeast; 109 bacteria (Gram + or Gram -); For the rest of samples or special applications contact our technical service.
- Elution volume: 60-100 µl.
- · High quality DNA obtained that can be directly used in PCR, Southern, any enzymatic reaction, cloning, etc

#### **DANAGENE microSPIN DNA Kit**

- · Rapidly purify genomic and mitochondrial DNA from small samples, such as different kinds of cells and tissues, laser-microdissected samples, small amounts of blood using a special column design.
- · Rapid purification of high-quality DNA from small samples quantities.
- No organic extraction or alcohol precipitation.
- Complete removal of contaminants and inhibitors for reliable downstream applications.
- Elution volume: 10-30 µl.
- · High quality DNA obtained that can be directly used in PCR, Southern, any enzymatic reaction, cloning, etc.

#### DANAGENE SPIN Food-Stool "Bacteria" Kit

- This kit has been optimized for an efficient and fast PCR-ready bacterial DNA extraction (Listeria, Salmonella, E.coli, etc) from pre-enrichment or enrichment culture from different food samples, raw materials or feces.
- · Complete removal of PCR inhibitors.
- PCR and Real Time PCR- ready DNA.
- Sample size: from 1 ml of pre-enrichment or enrichment medium of different food samples

#### **DANAGENE SPIN Food-Stool Kit**

- This kit has been optimized for an efficient and fast purification of total DNA from fresh or frozen stool samples and various food samples (raw material and processed
- Even low amounts of partially degrade DNA can be purified from complex matrices.
- Complete removal of contaminants and inhibitors for reliable downstream applications.
- Sample size: up to 200mg.

#### DANAGENE FFPE DNA Kit

- · This kit is optimized for a fast method to isolate DNA from formalin-fixed, paraffin-embedded (FFPE) tissue specimen.
- Very easy paraffin removal with suministred **DEPARAFFINIZATION SOLUTION.**
- Safe method avoids xylene and other toxic.
- Complete removal of contaminants and inhibitors for reliable downstream applications.
- Low elution volume: 15-30 µl.
- The quality of DNA is suitable for the following applications as quantitative PCR or Next generation sequencing (NGS).

#### **DANAGENE Plant DNA Kit**

- Rapidly purify RNA-free gDNA from a wide variety of plant tissues or plant cells.
- · It contains a PVP solution that allows working with plants with a high content polyssacharides and polyphenols compounds.
- Complete removal of contaminants and inhibitors for reliable downstream applications.
- · Sample size: up to 200mg.

PRODUCT	Preps	Reference
DANAGENE SPIN Blood DNA Kit	50	0606.1
	250	0606.2
DANAGENE SPIN Genomic DNA Kit	50	0605.1
	250	0605.2
	1000	0605.3
DANAGENE microSPIN DNA Kit	50	0607.1
	250	0607.2
DANAGENE SPIN Food-Stool "Bacteria" Kit	50	0608.1
	250	0608.2
DANAGENE SPIN Food-Stool Kit	50	0609.1
	250	0609.2
DANAGENE FFPE DNA Kit	50	0610.1
DANAGENE SPIN Plant DNA Kit	50	0611.1
	250	0611.2





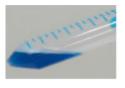
### Plasmid DNA Purification Kits



It introduces **TrueBLUE Lysis control reagent** a color indicator wich provides visual identification of optimum buffer mixing. This prevent common handling errors that lead to inefficient cell lysis and incomplete precipitation of SDS, genomic DNA and cell debris. This makes ideal for use by researchers who have not much experience with plasmid preparation as well as experienced scientists who want to be assured of maximum product yield.

### Visualization of efficient cell lysis and SDS precipitation using TrueBLUE Lysis control reagent

**CELL LYSIS** 







NEUTRALIZATION



**CORRECT MIXING** 

INSUFFICIENT MIXING

**CORRECT MIXING** 

**INSUFFICIENT MIXING** 

#### **DANAGENE PLASMID Miniprep Kit**

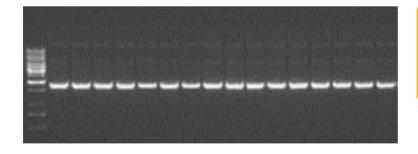
- Purify plasmid DNA within 15 minutes.
- Convenient: Plasmid silica fiber spin column (red membrane optimized for plasmid DNA purification).
- Plasmid Size: 1-15 kb.
- High Yield: up to 20 µg of pure plasmid DNA.
- Sample Volume: 1.5-3.0 ml of cultured bacterial cells.

The extracted DNA can be used in PCR, restriction analysis, subcloning, transforming and:

- 1. Sequencing DANAGENE PLASMID Miniprep "Sequencing grade" kit.
- 2. Trasfection process DANAGENE PLASMID Miniprep "Transfection grade" kit.

#### DANAGENE PLASMID MIDIPREP/MAXIPREP KIT

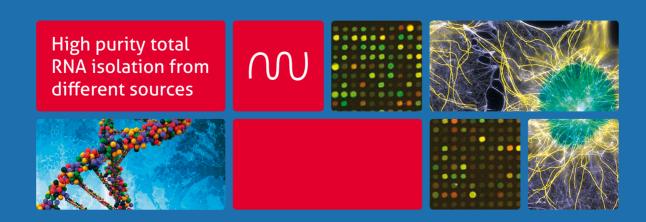
- Based on familiar anion-exchange columns.
- · Achieve transfection grade plasmid purity.
- · Columns available in MIDI (25-50 ml high-copy plasmids / 100ml low-copy plasmids) and MAXI (100-150 ml highcopy plasmids / 500ml low-copy plasmids) formats.
- Gravity-flow columns and all the necessary reagents for ultrapure plasmid purification.
- Includes specialized filters to optional remove cellular debris from lysates.



Agarose gel electrophoresis of plasmid DNA

PRODUCT	Preps	Reference
DANAGENE PLASMID Miniprep "Sequencing grade" kit	250	0702.1
	1000	0702.2
DANAGENE PLASMID Miniprep "Transfection grade" kit	100	0702.3
DANAGENE PLASMID MIDIPREP KIT	25	0702.4
DANAGENE PLASMID MAXIPREP KIT	10	0702.5

# RNA Purification Kits



#### DANAGENE RNA PURIFICATION Kit

- · Rapid method for the isolation and purification of total RNA from cultured animal cells, tissue samples, bacteria, yeast, biological fluids and reactions mixture
- Purification is based silica membrane column technology.
- It can be obtain up to 70 µg.
- A<sub>260/280</sub> of 1.9-2.1.
- Rapid protocol 30-45 minutes.
- It can be obtain RNA from 100 to 5 x 10<sup>6</sup> cells, 5-30 mg of tissue, 109 bacteria, 5 x 107 yeast and cleaning reactions.
- Purified RNA can be used in a number of downstream applications including real time PCR, reverse transcription PCR, Notehrn blotting, RNase protection and primer extension, and expression array assays.

#### DANAGENE PLANT RNA PURIFICATION Kit

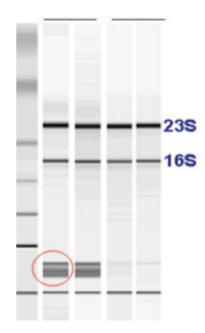
- Rapid method for the isolation and purification of total RNA from different cells and tissues of plants and fungi samples.
- · Purification is based silica membrane column technology.
- It can be obtain up to 70 µg.
- A260/280 of 1.9-2.1.
- Rapid protocol 30-45 minutes.
- Samples up to 100 mg can be processed.
- · Includes filters to homogenize and to reduce the lysate viscosity, a PVP solution to remove the carbohydrates and polyphenols, 2 different lysis buffers.
- Purified RNA can be used in a number of downstream applications including real time PCR, reverse transcription PCR, Notehrn blotting, RNase protection and primer extension, and expression array assays.

#### DANAGENEZOL TOTAL RNA PURIFICATION Kit

- Isolate high quality total RNA from large rRNA down to microRNA from a variety of sources.
- · Purification is based on spin column chromatography.
- RNA is isolated without the use of harmful chemicals as phenol or chloroform.
- Rapid protocol 30-45 minutes.
- Purified RNA can be used in a number of downstream applications including real time PCR, reverse transcription PCR, Nothern blotting, RNase protection and primer extension, and expression array assays.

#### DANAGENE microRNA Kit

- · High quality total RNA, all small RNA species can be isolated including miRNA, siRNA, tRNA, 5S rRNA.
- Purification is based on spin column chromatography.
- Efficient isolation of small RNA species using a 2 column process, resulting in minimal contamination of larger RNA and genomic DNA.

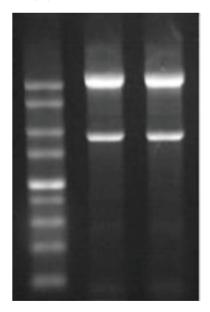


M DANAGENEZOL Competitor

#### High quality of isolated RNA compared to a competitor.

Total E.coli RNA analzed on the Agilent 2100 BioAnalizer. Note the presence of small RNA species (red circle) in the sample isolated with the DANAGENEZOL Kit and the absence in the competitor.

M 2 1



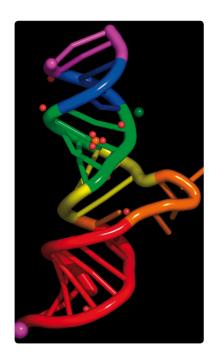
Total RNA isolated using DANAGENE PURIFICATION KIT.

Total RNA was isolated from HeLa Cells

- RNA is isolated without the use of harmful chemicals as phenol or chloroform..
- Rapid protocol 30-45 minutes.
- Purified RNA can be used in a number of downstream applications including real time PCR, reverse transcription PCR, Notehrn blotting, RNase protection and primer extension, and expression array assays.

#### DANAGENE DNA/RNA PURIFICATION Kit

- High quality DNA and RNA from the same sample using DNA and RNA spin columns.
- Analysis will be more reliable since the RNA and DNA are derived from the same sample.
- DNA and RNA are isolated without the use of harmful chemicals as phenol or chloroform.
- Fast and rapid processing in less than 20 minutes.
- Ready-to-use DNA and RNA for any downstream analysis.



PRODUCT	Preps	Reference
DANAGENE RNA PURIFICATION Kit	100	0801.1
	500	0801.2
DANAGENE PLANT RNA PURIFICATION Kit	100	0802.1
	500	0802.2
DANAGENEZOL TOTAL RNA PURIFICATION Kit	100	0803
DANAGENE microRNA Kit	50	0804
DANAGENE DNA/RNA PURIFICATION Kit	50	0805

# Purification and Gel Extraction Kits



#### DANAGENE CLEAN PCR and DANAGENE GEL/PCR

#### **Applications:**

- PCR products clean-up.
- DNA fragment extraction from agarose gel run with TAE o TBE buffer
- DNA extraction from solutions, such as restriction or ligation reactions.

#### Features:

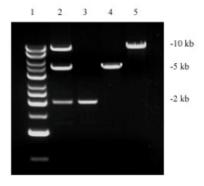
- Spin Columns with silica membranes.
- High Efficiency: up to 90% recovery from agarose gels, up to 95% recovery from PCR or other enzymatic reactions.
- Sample Size: up to 300 mg of agarose gel slice or up to 100  $\mu l$  of PCR products.
- Broad Fragment Size Range: 70 bp-20 kb.
- Primers and primer/dimer removal.
- The protocol is done in 10 minutes.

The DANAGENE CLEAN PCR Kit was designed to recover or concentrate DNA fragments from PCR or other enzymatic reactions.

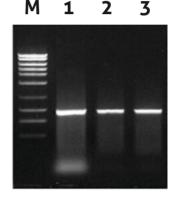
The DANAGENE GEL/PCR Kit will recover or concentrate fragments from agarose gel, PCR, or other enzymatic reactions.

#### DANAGENE CLEAN & CONCENTRATION KIT

- · Rapid method for purification and concentration of high-quality DNA from PCR or enzymatic reactions with an extremely small elution volume of only 10 µl.
- The microspin columns are designed to allow elution in very small volumes (as little as 10  $\mu$ l) delivering highly concentrated DNA in high yields.
- DNA Size Limits: From 70 pb to 23 Kb.
- DNA Recovery: Tipically, up to 5 µg total DNA per column can be eluted into as little as 10 µl.
- The protocol is done in 2 minutes.
- · Fast procedure and easy handling.
- · Eluted DNA is well suited for use in DNA ligation, sequencing, labelling, PCR, etc.



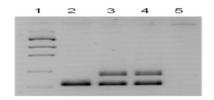
Recovery of different DNA fragments from agarose gel using the DANAGENE GEL/PCR KIT



PCR clean-up using the **DANAGENE CLEAN PCR Kit** 

PRODUCT	Preps	Reference
DANAGENE CLEAN PCR KIT	50	0501.1
	250	0501.2
	1000	0501.3
DANAGENE GEL/PCR Kit	50	0502.1
	250	0502.2
	1000	0502.3
DANAGENE CLEAN & CONCENTRATION KIT	50	0503.1
	250	0503.2
	1000	0503.3

### Fast and efficient PCR ready Genomic DNA



PCR from isolated and amplified DNA using the DANAGENE TURBO Tissues & Cells Kit

DNA was isolated from mouse tails and an amplification of the Myf-5 gene was carried out giving a 200 bp for normal mice and mutant mice who take a sequence LoxP 275pb.

- Molecular weight marker.
- 2 Normal mouse.
- Heterozigous mouse.
- Heterozigous mouse. 4.
- Negative control.

#### DANAGENE TURBO Tissues & Cells Kit

- · Rapid purification of PCR-ready genomic DNA from tissue and animal cell samples, mouse tails, hair shafts and bacteria in just 2 steps taking only 15 minutes.
- It allows to process a high number of samples for genotyping, SNP analysis, etc.
- · Protocols for tissue and animal cells samples, mouse tail, hair and bacteria are supplied..
- It includes all necessary reagents for doing the total process, even a ready to use HOT STAR Polymerase.
- It can be automated.

PRODUCT	Preps	Reference
DANAGENE TURBO Tissues &	100	1104
Cells Kit	100	2204

# Fast and efficient viral nucleic acid purification

#### DANAGENE SPIN Viral DNA/RNA Kit

- Flexible system for purification of viral DNA/RNA free of impurities.
- Fast and easy purification with excellent reproducibility.
- Includes carrier-RNA for highest sensitivity in downstream applications.
- The viral DNA/RNA can be used directly as templates for standard PCR or RT-PCR.
- Sample material: 200 µl serum, plasma, cell-free biological fluids.
- · Can bind nucleic acids that are longer than 200 bases but yield depends on sample volume and virus titer.

PRODUCT	Preps	Reference
DANAGENE SPIN Viral DNA/RNA Kit	100	0612.1



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