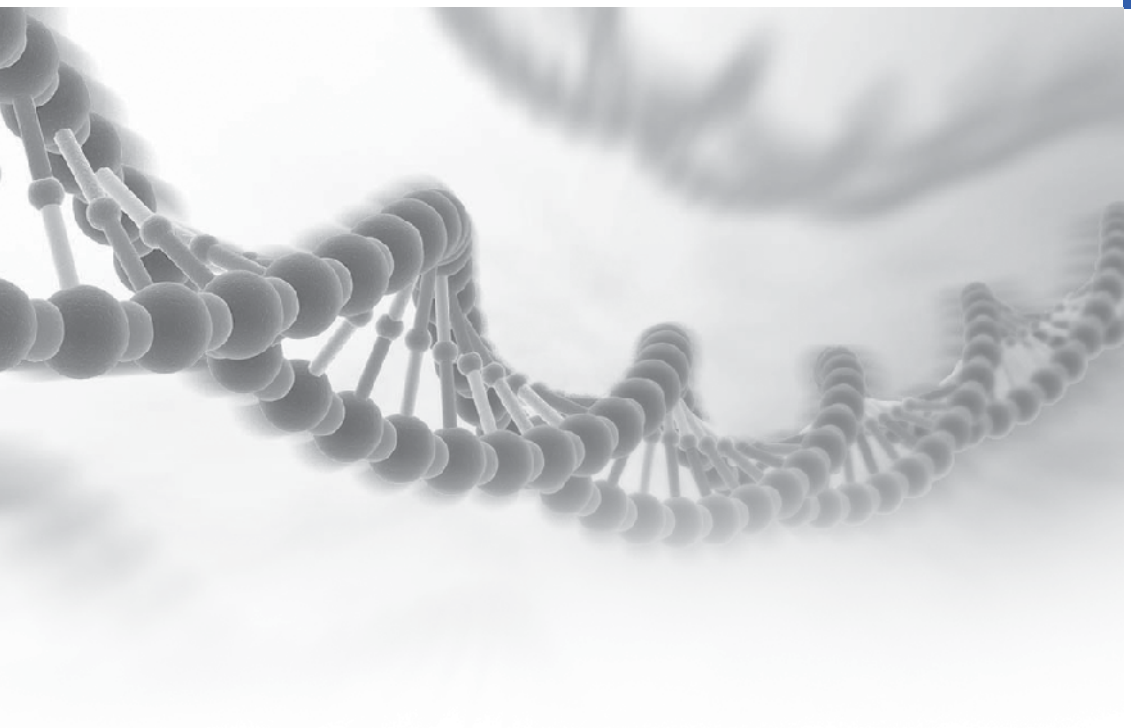
GENETIX BRAND

HANDBOOK

Nucleo-pore®

Genomic DNA Purification from Blood

☐ **DNASure® Blood Mini Kit**	NP-61105	50 Preps
☐ **DNASure® Blood Mini Kit**	NP-61107	250 Preps
☐ **DNASure® Blood Midi Kit**	NP-61184	20 Preps
☐ **DNASure® Blood Maxi Kit**	NP-61193	10 Preps
☐ **DNASure® Blood FastPure Kit**	NP-62205	50 Preps
☐ **DNASure® Blood FastPure Kit**	NP-62207	250 Preps



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Nucleo-pore®

Table of Content

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COMPONENTS

Kit contents

DNASure® Blood Mini Kit

Cat. No.	NP-61105	NP-61107
Number of Preps	**50 preps**	**250 preps**
Buffer GB1*	10 ml	50 ml
Buffer GB2*	2.5 ml	12.5 ml
Wash Buffer GBW	30 ml	2 x 75 ml
Wash Buffer GB5 (Concentrate)*	7 ml	2 x 20 ml
Elution Buffer GBE	13 ml	60 ml
Proteinase K (lyophilized)*	30 mg	2 x 75 mg
Proteinase Buffer PB	1.8 ml	8 ml
DNASure® Blood Mini Columns	50	250
Collection Tubes (2 ml)	100	500
Labels for Lysis Buffer GB3*	1	1
Handbook	1	1

DNASure® Blood Midi Kit

Cat. No.	NP-61184
Number of Preps	**20 preps**
Lysis Buffer GBL1	45 ml
Wash Buffer GBL2 (Concentrate)*	20 ml
Elution Buffer GBE	10 ml
Proteinase K (lyophilized)*	60 mg
Proteinase Buffer PB	3.6 ml
DNASure® Blood Midi Columns	20
Collection Tubes (15 ml)	20
Handbook	1

* Please see “Preparation of Reagents”

DNASure® Blood Maxi Kit

Cat. No.	NP-61193
Number of Preps	**10 preps**
Lysis Buffer GBL1	125 ml
Wash Buffer GBL2 (Concentrate)*	50 ml
Elution Buffer GBE	25 ml
Proteinase K (lyophilized)*	126 mg
Proteinase Buffer PB	8 ml
DNASure® Blood Maxi Columns	10
Collection Tubes (50 ml)	10
Handbook	1

DNASure® Blood Fast Pure Kit

Cat. No.	NP-62205	NP-62207
Number of Preps	**50 preps**	**250 preps**
Lysis Buffer GBL1	12.5 ml	62.5 ml
Wash Buffer GBL2 (Concentrate)*	7 ml	2 x 20 ml
Elution Buffer GBE	13 ml	60 ml
Proteinase K (lyophilized)*	30 mg	2 x 75 mg
Proteinase Buffer PB	1.8 ml	8 ml
DNASure® Blood FastPure Columns	50	250
Collection Tubes (2 ml)	50	250
Handbook	1	1

* Please see “Preparation of Reagents”

Reagents, consumables and equipments not provided with the kit

- Ethanol (96-100%)
- 1.5 ml Micro centrifuge tubes
- 15 ml and 50 ml centrifuge tubes
- Pipettes, Vortex, Dry/Waterbath

SAFETY INSTRUCTIONS

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDSs).

Buffers GB1, GBL1and GBW contain guanidine salts, which can form highly reactive compounds when combined with bleach. If liquid containing these buffers is spilt, clean with suitable laboratory detergent and water. If the spilt liquid contains potentially infectious agents, clean the affected area first with laboratory detergent and water, and then with 1% (v/v) sodium hypochlorite.
The following risk and safety phrases apply to components of the DNASure® Blood Kit:

Buffer GB1
Contain Guanidine hydrochloride: R&S Phrases: R22-36/38

Buffer GBL1
Contain Guanidine hydrochloride: R&S Phrases: R22-36/38

Wash Buffer GBW
Contain Guanidine hydrochloride: R&S Phrases: R22-36/38, S16-25

Proteinase K
Contain lyophilized Proteinase K: R&S Phrases: R36/37/38/42, S22-24-26-36/37

R22: Harmful if swallowed, R36/38: Irritating to eyes and skin, R36/37/38: Irritating to eyes, respiratory system and skin, R42: May cause sensitisation by inhalation, S16: S16: Keep away from sources of ignition - No smoking, S22: S22: Do not breathe dust, S24: Avoid contact with skin, S25: Avoid contact with eyes, S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice, S36/37: Wear suitable protective clothing and gloves.

INTRODUCTION

Principle and Procedure

With the DNASure® Blood method, genomic DNA is prepared from whole blood, cultured cells, serum, plasma, or other body fluids. Lysis is achieved by incubation of whole blood in a solution containing high concentration of chaotropic ions and Proteinase K. Further binding of DNA to the silica membrane is achieved by adding ethanol to the lysate. The binding process is reversible and specific to nucleic acids. Washing steps efficiently remove contaminations and debris. With the DNASure® Blood FastPure kit, contaminations are removed by a single wash step. Pure genomic DNA is finally eluted using solutions of low ionic strength in a slightly alkaline elution buffer.

Specifications of DNASure® Blood kits

Kits are designed for the fast isolation of highly pure gDNA from whole blood, serum, plasma, or other body fluids. Purification of viral DNA (e.g., HBV) from blood samples is also possible using DNASure® Blood Kits. As viral DNA copurifies with cellular DNA, we recommend using cell-free samples (serum or plasma) to prepare pure viral DNA.
The DNASure® Blood Fast Pure kit is designed for fast small-scale purification of highly pure genomic DNA from whole blood, serum, plasma, or other body fluids. The number of washing and drying steps is reduced from 3 to 1, therefore the hands-on time is less than 10 min. DNA can be purified successfully from blood samples treated with EDTA, citrate, or heparin. For buffy coat, apply smaller volumes and adjust the samples with sterile PBS. The kits allow purification of highly pure genomic DNA with an A_{260} / A_{280} ratio between 1.60 and 1.90 and a typical concentration of 40 - 60 ng per µl for the DNASure® Blood kit, 80 – 120 ng per µl for the DNASure® Blood FastPure kit and 200 – 300 ng per µl for the DNASure® Blood Midi / Maxi kits. The purified DNA is ready-to-use for subsequent reactions like PCR, Southern blotting, or any kind of enzymatic reactions.

Starting material and typical yield

- Upto 4-6 µg of DNA can be extracted from upto 200 µl of whole blood or 5 x 10^6 cells in 100µl elution volume using DNA Sure® Blood Mini kit or 50µl using DNASure® Fast Pure Kit.
- 40-60µg of DNA can be extracted from upto 2ml of whole Blood (2x10^7 cells) in 200µl elution volume using DNASure® Blood Midi Kit
- Upto 200-300µg of DNA can be extracted from 10ml of whole blood (1 x 10^8 cells) in 0.5-2ml elution volume using DNASure® Blood Maxi Kit.

Storage of blood samples

For the isolation of genomic DNA from blood treated with anticoagulants (heparin, citrate, or EDTA) using a DNASure® Blood kit, the blood samples stored at room temperature, 2-8 °C, or frozen can be used. However, DNA yield and quality will slowly decrease due to prolonged storage of blood samples under these conditions. Frozen blood is also well suited for DNA isolation. Highest yields and quality of DNA are obtained from fresh blood.

Preparation and Storage of reagents

All kit components can be stored at room temperature (18 – 25 °C) and are stable up to one year without showing any reduction in performance. During storage, especially at low temperatures, a white precipitate may form in Buffer LBT, GB1, GBL1 or GB3. Dissolve precipitates by incubating the GB1 bottle at 70°C prior to use.

Prepare Lysis Buffer GB3 (DNASure® Blood Mini Kit)

Transfer the total content of Buffer GB1 to Buffer GB2 and mix well. Mark the bottle as Lysis Buffer GB3. The resulting Lysis Buffer GB3 is stable for upto one year at room temperature.

Reconstitution of Wash Buffers

Wash Buffer GB5 Concentrate:

Add 28ml ethanol (Kits NP-61105 and NP-62205); 80ml ethanol to each bottle (Kits NP-61107 and NP-62207). Mark the bottles as "Ethanol Added". GB5 is stable for upto one year at room temperature.

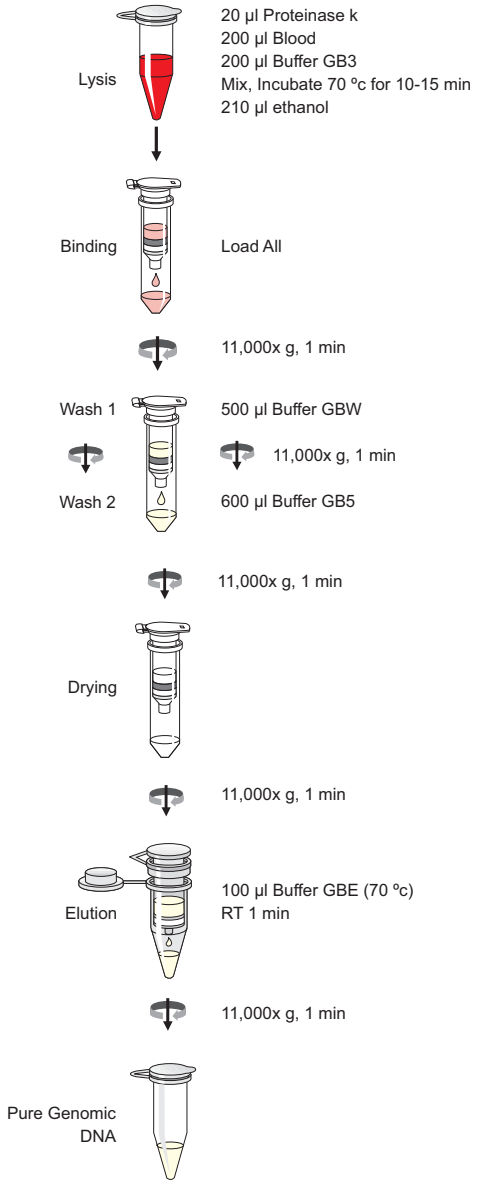
Wash Buffer GBL2 Concentrate:

Add 80ml (Kit NP-61184) and 200ml (Kit NP-61193) of ethanol (96-100%) respectively.
Mark the bottles as "Ethanol Added". GBL2 is stable for upto one year at room temperature.

Reconstitution of Proteinase K

Add 1.35ml of Proteinase Buffer PB to 30mg of lyophilized Proteinase K (Kits NP-61105 and NP-62205), add 3.35ml of Proteinase Buffer PB to each vial of 75mg lyophilized Proteinase K (Kits NP-61107 and NP-62207), add 3.15ml of Proteinase Buffer PB to 60mg of lyophilized Proteinase K (Kit NP-61184) and add 5.75ml of Proteinase Buffer PB to 126mg of lyophilized Proteinase K (Kit NP-61193).

Genomic DNA Purification from Blood



Protocols for DNA purification from whole blood

Genomic DNA purification with DNASure® Blood Mini Kit

Things to do before starting

- Check if Buffer GB3, Buffer GB5, and Proteinase K were reconstituted as per instructions.
- Set an incubator or water bath to 70 °C.
- Preheat Elution Buffer GBE to 70 °C.

Procedure

1 **Pipette 25 µl Proteinase K into the bottom of a 1.5ml microcentrifuge tube (not provided) to it add up to 200 µl blood, body fluid sample, or buffy coat from 1 ml blood (equilibrated to room temperature).** If the sample volume is less than 200 µl, add the appropriate volume of PBS.

If purifying DNA viruses, we recommend starting with 200 µl serum or plasma. If cultured cells are used, resuspend up to 5 x 10^6 cells in a final volume of 200 µl PBS.

2 **Add 200 µl Buffer GB3 to the samples and vortex the mixture vigorously (15 s). Incubate samples at 70 °C for 10 - 15 min.**

Vigorous mixing is important to obtain high yield and purity of DNA.

The lysate becomes brownish during incubation with Buffer GB3. For processing of older or clotted blood samples increase the incubation time with Proteinase K (up to 30 min) and vortex vigorously during incubation at least two to three times

3 **Add 210 µl ethanol (96 – 100 %) to each sample and vortex again.**

4 **Pipet the mixture from step 3 into the DNASure® Blood Mini Column placed in a Collection Tube. Centrifuge 1 min at 11,000 x g. Discard Collection Tube with flow-through.** If the samples are not drawn through the matrix completely, repeat the centrifugation at higher g-force (< 15,000 x g).

5 **Place the DNASure® Blood Mini Column into a fresh Collection Tube (2 ml) and add 500 µl Buffer GBW. Centrifuge 1 min at 11,000 x g. Discard Collection Tube with flow-through.**

6 **Place the DNASure® Blood Mini Column into a fresh Collection Tube (2 ml) and add 600 µl Buffer GB5. Centrifuge 1 min at 11,000 x g. Discard flow-through and reuse Collection Tube.**

7 **Place the DNASure® Blood Mini Column back into the Collection Tube and centrifuge 1 min at 11,000 x g.**

This centrifugation step ensures that no residual ethanol is carried over during the following elution.

8 **Place the DNASure® Blood Mini Column in a 1.5 ml microcentrifuge tube (not provided) and add 100 µl preheated Buffer GBE (70°C). Dispense buffer directly onto the silica membrane. Incubate at room temperature for 1 min. Centrifuge 1 min at 11,000 x g.**

Note: In order to get high yield repeat elution step (8), for high concentration simply add 60µl of preheated GBE instead of 100µl

Genomic DNA purification with DNASure® Blood Midi Kit

Things to do Before starting:

- Check if Buffer GBL2 and Proteinase K were reconstituted as per instructions.
- Set an incubator or water bath to 56 °C.
- Preheat Elution Buffer GBE to 70 °C.
- For centrifugation, a centrifuge with a swing-out rotor and appropriate buckets capable of reaching 4,000 - 4,500 x g is required.

Procedure

1 **Pipette up to 2 ml blood (or body fluid) sample (equilibrated to room temperature) and 150 µl Proteinase K into a 15 ml tube (not provided).** If processing buffy coat, do not use more than 1 ml and add PBS to adjust the volume to 2 ml. If cultured cells are used, resuspend up to 2 x 10^7 cells in a final volume of 2 ml PBS.

2 **Add 2 ml Buffer GBL1 (if processing less than 2 ml blood, add one volume of Buffer GBL1) to the samples and vortex the mixture vigorously for 10s. Incubate samples at 56°C for 15 min.**
Note: Vigorous mixing is important to obtain high yield and purity of DNA.
Let the samples cool down to room temperature before proceeding with addition of ethanol. The lysate should become brownish during incubation with Buffer GBL1. Increase incubation time with Proteinase K (up to 20 min) and vortex once or twice during incubation if processing older or clotted blood samples.

3 **Add 2 ml ethanol (96 – 100 %) (if processing less than 2 ml blood, add 1 volume of ethanol) to each sample and mix by inverting the tube 10 times.**
Note: High local ethanol concentration must be avoided by immediate mixing after addition. Be sure that the lysate has cooled down to room temperature before loading it onto the column. Loading of hot lysate may lead to diminished yields.

4 **For each preparation, take a DNASure® Blood Midi Column placed in a Collection Tube and load 3 ml of lysate. Avoid wetting the rims of the columns. Close the tubes with screw caps and centrifuge 3 min at 4,500 x g.**
Keep DNASure® Blood Midi Column in an upright position as liquid may pass through the ventilation slots on the rim of the column even if the caps are closed.

5 **Load the remaining lysate in a second step to the respective DNASure® Blood Midi Column, avoiding wetting the rim. Centrifuge 5 min at 4,500 x g. Discard the flow-through and place the column back into the Collection Tube.**
Remove the Collection Tube with the column carefully from the rotor to avoid flow-through coming in contact with the column outlet. Be sure to wipe off any spilled lysate from the Collection Tube before placing the column back.

6 **Add 2 ml Buffer GBL2. Centrifuge 2 min at 4,500 x g.**
It is not necessary to discard the flow-through after the first washing step.

7 **Add 2 ml Buffer GBL2. Centrifuge 10 min at 4,500 x g. Remove the column carefully from the rotor in order to avoid that the flow-through comes in contact with the column outlet.**
By prolonged centrifugation during this second washing step, residual ethanolic washing Buffer GBL2 is removed from the silica membrane of the DNASure® Blood Midi Column.

8 **Place the column into a fresh Collection Tube (15 ml) and apply 200 µl preheated Buffer GBE (70°C) directly to the center of the silica membrane. Incubate at room temperature (18-25°C) for 2 min. Centrifuge at 4,500 x g for 2 min.**
Note: In order to get high yield repeat elution step (8), for high concentration simply add 120µl of preheated GBE instead of 200µl

Genomic DNA purification with DNASure® Blood Maxi

Things to do before starting:

- Check if Buffer GBL2 and Proteinase K were reconstituted as per instructions.
- Set an incubator or water bath to 56 °C.
- Preheat Elution Buffer GBE to 70 °C.
- For centrifugation, a centrifuge with a swing-out rotor and appropriate buckets capable of reaching 4,000 - 4,500 x g is required.

Procedure

1 **Pipette up to 10 ml blood (or body fluid) sample (equilibrated to room temperature 18-25°C) and 500 µl Proteinase K into a 50 ml tube (not provided).** If processing ≤5 ml blood, sample loading with a single centrifugation step is possible (step 3). In case of buffy coat, do not use more than 2 ml and add PBS to adjust the volume to 10 ml.If cultured cells are used, resuspend up to 1 x 10^8 cells in a final volume of 10 ml PBS.

2 **Add 10 ml Buffer GBL1 (if processing less than 10 ml blood, add one volume of Buffer GBL1) to the samples and vortex the mixture vigorously for 10s. Incubate samples at 56°C for 15 min.**
Note: Vigorous mixing is important to obtain high yield and purity of DNA.
Let the lysate cool down to room temperature before proceeding with addition of ethanol. The lysate should become brownish during incubation with Buffer GBL1. Increase incubation time with Proteinase K (up to 20 min) and vortex once or twice during incubation if processing older or clotted blood samples.

3 **Add 10 ml ethanol (96 – 100 %) (if processing less than 10 ml blood, add one volume of ethanol) to each sample and mix by inverting the tube 10 times.**
Note: High ethanol concentration must be avoided by immediate mixing after addition. Be sure that the lysate has cooled down to room temperature (about 5 min) before loading it onto the columns. Loading of hot lysate may lead to diminished yields.

4 **Load 15 ml of lysate onto the DNASure® Blood Maxi Column placed in a Collection tube. Avoid wetting the rim of the column. Close the tubes with screw caps and centrifuge 3 min at 4,000 x g Discard flow-through.**
Discarding the flow-through may be omitted. Keep DNASure® Blood Maxi Column in an upright position as liquid may pass through the ventilation slots on the rim of the column even if the caps are closed. Usually the lysate will start to flow through the column even before centrifugation. This will not adversely affect DNA yield or purity.

5 **Load 15 ml of the remaining lysate to the respective DNASure® Blood Maxi Column. Avoid wetting the rim. Centrifuge 3 min at 4,000 x g. Discard the flowthrough and place the column back into the Collection Tube.**
Remove the Collection Tube with the column carefully from the rotor and avoid that the flow-through comes in contact with the column outlet.If you process ≤5 ml blood no loading of remaining lysate is necessary.

6 **Add 7.5 ml Buffer GBL2 to the DNASure® Blood Maxi Column. Centrifuge 2 min at 4,000xg.**
It is not necessary to discard the flow-through after the first washing step.

7 **Add 7.5 ml Buffer GBL2. Centrifuge 10 min at 4,000 x g.** Remove the column carefully from the rotor make sure the flowthrough does not comes into contact of column outlet.
This centrifugation step ensures that no residual ethanol is carried over during the following elution.
The drying of the DNASure® Blood Maxi Column is performed by prolonged centrifugation time (10 min) in the Wash 2 step.

8 **Place the column into a fresh Collection Tube (50 ml) and apply 1000 µl of preheated Buffer GBE (70°C) directly to the center of the silica membrane. Incubate at room temperature (18-25°C) for 2 min. Centrifuge at 4,000 x g for 2 min.**
Note: In order to get high yield repeat elution step (7), for high concentration simply add 600µl of preheated GBE instead of 1000µl

Genomic DNA purification with DNASure® Blood FastPure

Things to do before starting:

- Check if Buffer GBL2 and Proteinase K were reconstituted as per instructions..
- Set an incubator or water bath to 70°C.
- Preheat Elution Buffer GBE to 70°C.

Procedure

1 **Pipette 25µl Proteinase K and up to 200µl blood, buffy coat or body fluid sample (equilibrated to room temperature) into 1.5 ml microcentrifuge tubes (not provided).** For sample volumes less than 200 µl, add PBS to adjust the volume to 200 µl. If cultured cells are used, resuspend up to 5 x 10^6 cells in a final volume of 200 µl PBS.

2 **Add 200µl Lysis Buffer GBL1 to the samples and vortex the mixture vigorously (10 – 20 s). Note: Vigorous mixing is important to obtain high yield and purity of DNA. Incubate samples at 70°C for 10-15 min.** The lysate should become brownish during incubation withBuffer GBL1. Increase incubation time with Proteinase K (up to 30 min) and vortex once or twice vigorously during incubation if processing older or clotted blood samples.

3 **Add 200 µl ethanol (96 – 100 %) to each sample and vortex again.**

4 **Apply samples to the DNASure® Blood FastPure Columns placed in a Collection Tube and centrifuge for 1 min at 11,000 x g.** If the samples are not drawn through the matrix completely, repeat the centrifugation at higher g-force (up to 15,000 x g). Discard Collection Tube with flow-through.

5 **Place the DNASure® Blood FastPure Column into a fresh Collection Tube (2 ml) and add 350 µl Buffer GBL2. Centrifuge 3 min at 11,000 x g. Discard Collection Tube with flow-through.** The drying of the DNASure® Blood FastPure Column is performed by the 3 min centrifugation.
Optional: Place the DNASure® Blood FastPure Colum n into a fresh Collection Tube (2 ml; not provided) and add200 µl Buffer GBL2. Centrifuge 1 min at 11,000 x g. Discard flow-through and Collection Tube and proceed to step 6.

6 **Place the DNASure® Blood FastPure Column in a 1.5 ml microcentrifuge tube (not provided) and add 50 µl prewarmed Buffer GBE (70 °C). Dispense buffer directly onto the silica membrane. Incubate at room temperature (18-25°C) for 1 min. Centrifuge 1 min at 11,000 x g.**
Note: In order to get high yield repeat elution step (6), for high concentration simply add 30µl of preheated GBE instead of 50µl

TROUBLESHOOTING GUIDE

Poor quality of DNA

Possible cause
- Buffers and Reagents not re-constituted properly

Suggestions
- Reconstitute buffers and Proteinase K solution as per instructions. Make sure ethanol was added to the wash buffer. Add ethanol to lysates and mix before loading them onto the columns.

Possible cause
- Insufficient cell lysis

Suggestions
- Due to insufficient mixing with lysis buffer. Use freshly prepared Proteinase K. Vortex the mixture vigorously immediately after addition of lysis buffer.

Possible cause
- RNA Contamination

Suggestions
- Add 20 µl RNase A solution (20 mg/ml) before addition of lysis buffer if RNA free DNA is required.

Possible cause
- Blood samples very old/clotted

Suggestions
- For isolation of DNA from clotted blood samples. Proteinase K incubation time should be increased to 30 min followed by pulse vortexing during lysis step. Particularly for DNASure® Blood Midi / Maxi with difficult blood samples performance can be improved by the following steps: After the washing step with Buffer GBL2 centrifuge the column at 4000xg for 10 minutes (blank) to completely remove the chaotropic salt contained in the wash buffer.

Possible cause
- Suboptimal performance of genomic DNA in enzymatic reactions

Suggestions
- Ethanol not completely removed: Make sure to remove all of ethanolic Buffer GB5 / GBL2 before eluting the DNA. If the level of GB5 / GBL2 after the second wash has reached the column outlet for any reason, discard flow-through, place the column back into the Collection Tube, and centrifuge again.

Possible cause
- Co-purification of inhibitory substances

Suggestions
- Use EDTA free elution buffer. It is recommended to use the elution buffer provided with the kit. For isolation of DNA from clotted blood samples, extend Proteinase K incubation to 30 min and vortex once or twice during this step. For DNASure® Blood: Add equal volume of Buffer GB3 plus equal volume ethanol to the eluate, load on DNASure® Blood Column, and proceed with the corresponding protocol. For DNASure® Blood FastPure kits : Add equal volume of Buffer GBL1 plus equal volume ethanol to the eluate, load on DNASure®Blood FastPure Column, and proceed with the corresponding protocol For DNASure® Blood Midi / Maxi: Add equal volume of Buffer GBL1 plus equal volume ethanol to the eluate, load on DNASure® Blood Midi/Maxi columns , and proceed with corresponding protocol.

Low DNA yield

Possible cause
- Leukocytes concentration too low

Suggestions
- Prepare buffy coat from the blood sample: Centrifuge whole blood at room temperature (3,300 x g; 10 min). Three different layers will be visible after centrifugation. Leukocytes are concentrated in the intermediate layer (buffy coat).

Possible cause
- Inefficient cell lysis due to insufficient mixing of the sample with lysis buffer / Proteinase K.

Suggestions
- Repeat the DNA purification procedure with a new sample. Vortex the mixture vigorously immediately after addition of lysis buffer.

Possible cause
- Proteinase K digestion not optimal.

Suggestions
- Use freshly prepared Proteinase K stored at 2-8°C. Do Not add Proteinase K directly to lysis buffer. Incubate for 15 – 20 min at 70 °C / 56 °C.

Possible cause
- No ethanol added to lysate before loading onto the column.

Suggestions
- Repeat the step with addition of ethanol (96-100%).

Possible cause
- Reagents not applied properly

Suggestions
- Reconstitute buffers and Proteinase K solution as per instructions. Make sure ethanol was added to the wash buffer

Possible cause
- Suboptimal elution of DNA from the column

Suggestions
- Preheat Buffer GBE to 70 °C before elution. Apply Buffer GBE directly onto the center of the silica membrane. Check the pH of elution buffer as elution efficiencies decrease dramatically if elution is performed with buffers of pH < 7.0. It is always recommended to use the elution buffer supplied with the kit. Pre-heat elution buffer and mix vigorously once during the 70°C / 56°C incubation step especially when working with clotted blood samples.

ORDERING INFORMATION

Description	Pack Size	Cat. No.
DNASure® Tissue Mini Kit	50 preps	NP-61305
DNASure® Plant Mini Kit	50 preps	NP-79105
DNASure® Plant Mini Kit	250 preps	NP-79107
DNASure® Plant Midi Kit	20 preps	NP-78153
DNASure® Plant Maxi Kit	10 preps	NP-78164
DNASure® Blood Mini Kit	50 preps	NP-61105
DNASure® Blood Mini Kit	250 preps	NP-61107
DNASure® Blood Midi Kit	20 preps	NP-61184
DNASure® Blood Maxi Kit	10 preps	NP-61193
DNASure® Blood FastPure Kit	50 preps	NP-62205
DNASure® Blood FastPure Kit	250 preps	NP-62207
SureSpin® Plasmid Mini Kit	50 preps	NP-37105
SureSpin® Plasmid Mini Kit	250 preps	NP-37107
SureSpin® Plasmid FastPrep Kit	50 preps	NP-47105
SureSpin® Plasmid FastPrep Kit	250 preps	NP-47107
SureSpin® Buffer Set*	1	37107-BS
SurePrep® Plasmid Mini Kit	20 preps	NP-15123
SurePrep® Plasmid Mini Kit	100 preps	NP-15125
SurePrep® Plasmid Midi Kit	20 preps	NP-15143
SurePrep® Plasmid Midi Kit	100 preps	NP-15145
SurePrep® Plasmid Maxi Kit	10 preps	NP-15161
SurePrep® Plasmid Maxi Kit	25 preps	NP-15162
SurePrep® Plasmid Mega Kit	5 preps	NP-15183
SurePrep® Plasmid Giga Kit	5 preps	NP-15191

***SureSpin® Buffer Set**

For the isolation of low-copy plasmids, buffers PA1, PA2, PA3, RNase A, sufficient for 300 preps

ORDERING INFORMATION

Description	Pack Size	Cat. No.
SurePrep® Buffer Set**	1	15143-BS
SurePrep® Plasmid Endofree Maxi Kit	10 preps	NP-15363
SurePrep Plasmid Endofree Mega Kit	5 preps	NP-15365
SurePrep® Plasmid Endofree Giga Kit	5 preps	NP-15367
SureSpin® 96 PCR Kit	4x96	NP-38151
SureTrap® Gel Extraction Kit	50 preps	NP-38705
SureTrap® Gel Extraction Kit	250 preps	NP-38707
SureTrap® PCR Cleanup Kit	50 preps	NP-38105
SureTrap® PCR Cleanup Kit	250 preps	NP-38107
SureExtract® Spin PCR/Gel Extraction Kit	50 preps	NP-36105
SureExtract® Spin PCR/Gel Extraction Kit	250 preps	NP-36107
SureSEQ® Cleanup Kit	50 preps	NP-73205
RNASure® Mini Kit	50 preps	NP-84105
RNASure® Mini Kit	250 preps	NP-84107
RNASure® Plant Kit	50 preps	NP-84905
RNASure® Plant Kit	250 preps	NP-84907
miRNASure® Mini Kit	50 preps	NP-71002
SureTrap® mRNA Mini Kit	12 preps	NP-80033
SureTrap® mRNA Midi Kit	12 preps	NP-80043
RNASure® Virus Kit	50 preps	NP-67705
RNASure® Virus Kit	250 preps	NP-67707

****SureSpin® Buffer Set**

For isolation of low-copy plasmids, cosmids, BACs, PACs, and P1 constructs, only applicable with SurePrep® Plasmid kits, sufficient for 10 SurePrep Maxi Columns (Maxi preps), 20 SurePrep® Midi Columns (Midi preps), set incl. RNase A

Product Warranty

DNASure® Blood Kit components are intended for research purposes only. They are suitable for *in vitro* uses only. The purchaser must determine the suitability of the product for its particular use. Should any product fail to perform satisfactorily due to any reason other than misuse, Genetix will replace it free of charge or refund the purchase price. Genetix reserve the right to change, alter, or modify any product to enhance its performance and design. It is the responsibility of the user to verify the use of the DNASure® Blood Kit for a specific application range as the performance characteristic of this kit has not been verified to a specific organism. No claim or representation is intended for its use to identify any specific organism or for clinical or therapeutic use.

Genetix does not warrant against damages or defects arising in shipping and handling (transport insurance for customers excluded), or out of accident or improper or abnormal use of this product.

In accordance with Genetix ISO-certified Quality Management System, each lot of DNASure® Blood Kit is tested against predetermined specifications to ensure consistent product quality.

In no event shall Genetix be liable for claims for any other damages, whether direct, indirect, incidental, compensatory, foreseeable, consequential, or special (including but not limited to loss of use, revenue or profit), whether based upon warranty, contract, tort (including negligence) or strict liability arising in connection with the sale or the failure of Genetix products to perform in accordance with the stated specifications.

Product claims are subject to change. Therefore please contact our Technical Support Department for updated information on Genetix products.

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