

## Related products / overview

- Magnetic Beads Plant Genomic DNA Miniprep Kit S5354
- Magnetic Beads Whole Blood DNA Miniprep Kit S5352
- Magnetic Beads Whole Blood DNA Midiprep Kit S5353
- JustSpin DNA Extraction columns S5337
- CentriSep Dye Terminator Removal columns S5300
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- Genaxxon pMBL TA Cloning Kit M3164
- Genaxxon Insert Inspector M3458

## Notes on Warranties and Disclaimer

Genaxxon is dedicated to your success and every batch of this product is tested with an extensive routine procedure to make sure that it meets all your needs. However, it has neither been developed nor tested for a specific application.

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## Genaxxon BioScience ExtraClean DNA Purification Kit (soil)

Product	Cat#	Package size
<b>ExtraClean DNA Kit (Standard soil)</b>	<b>S5360.0050</b>	<b>50 preps</b>
<b>ExtraClean DNA Kit (Standard soil)</b>	<b>S5360.0250</b>	<b>250 preps</b>
ExtraClean DNA Kit (rich in humic acids)	S5361.0050	50 preps
ExtraClean DNA Kit (rich in humic acids)	S5361.0250	250 preps

### Product description

The ExtraClean DNA Kit (soil) offers a simple system to isolate genomic and plasmid DNA from sources that are difficult to handle or spoiled with contaminating material like heavy metals, humic acids, phenolic components, etc.. The procedure includes the isolation of cells, the extraction of the DNA and the purification of the DNA from other components.

The kit has been tested for organisms from different sources, like soil, mud, and water or beverages. Subsequent PCR has shown that the quality of the DNA is extremely high, allowing to detect a copy number as low as 2-5 copies per PCR.

It is also possible to use the kit for purification of already isolated DNA, that might be still contaminated with one of the components mentioned above.

## Kit Components & Storage Information

Item	Cat: S5360.0050	Cat: S5360.0250
	Amount	Amount
Solution A	50 tubes	250 tubes
Solution B (irritant)	2.75 mL	13.75 mL

Solution A has to be stored at -20°C.

Solution B can be stored at -20°C. It is also possible to store solution B at +4°C.

### Additional Equipment needed (not supplied)

- Microcentrifuge for 1.5 mL tubes
- Centrifuge for 10 – 15 mL centrifugation tubes
- 2 thermal blocks (isothermic) for 1.5 mL reaction tubes
- Pipettes and filter tips
- DNase and RNase free reaction tubes
- DNase and RNase free sterile, deionised water

### Applications and Advantages

- No organic solvents necessary
- Fast isolation of DNA from different sources inclusive lysis of cells
- Samples from soil, mud, forensic material, etc.
- Fast isolation of DNA from crude plant extracts like vine, crop, etc..

### Procedure

The standard protocol is designed for DNA extraction from organisms from different environmental sources, containing “normal” amounts of impurities as heavy metals or humic acids. For high amounts of impurities an additional purification step has to be proceeded before the standard protocol. In this case we recommend our ExtraClean DNA Kit (humic acids) that is designed to extract DNA from heavily spoiled material.

## Sample preparation

### Solid samples like soil, mud, etc.

1. Suspend about 1 g of soil, mud, or other material in 10 mL pure water. Mix well and filter through a standard Whatman filter.
2. Transfer flow through into a centrifugation tube with conical bottom. Centrifuge at 5000xg for 15 minutes.
3. Proceed with step 1 of “DNA extraction”.

### Liquid samples / liquid cultures

1. Centrifuge sample material (e.g. 100 µL liquid bacteria culture).
2. Proceed with step 1 of “DNA extraction”.

### DNA extraction

- 1a. Discard supernatant and resuspend pellet with 25 µL pure water (DNase and RNase free).
- 2a. Add suspended cells to solution A (in supplied reaction tube). Mix well (vortex) and centrifuge shortly to collect all liquid at the bottom of the tube.
- 3a. Incubate at 55°C for 25 minutes.  
NOTE: An increase of the viscosity has to be observed.
- 4a. Add 50 µL of solution B. Mix well.
- 5a. Incubate at 95°C for 25 minutes.
- 6a. Centrifuge at 10000xg (about 12000 rpm with 15 cm rotor) and transfer supernatant into a separate clean and DNase/RNase free reaction tube.

### Purification from already isolated DNA

- 1b. Resuspend DNA in 25 µL pure water or TE buffer.
- 2b. Add DNA-solution to Solution A (supplied). Mix very carefully (shearing).
- 3b. Incubate at RT for 10 minutes.
- 4b. Centrifuge shortly at 5000xg (about 6000 rpm with 15 cm rotor) and transfer supernatant into a separate clean and DNase/RNase free reaction tube.

Use 10 µL of the transferred material for PCR. It is possible to store the left over for future experiments (6 – 12 months).

Please store left over at -20°C for this purpose.