

## Endotoxin Removal Kit (Midi) - For DNA

Norgen's **Endotoxin Removal Kit (Midi)** is designed for the rapid removal of endotoxins from up to 200 mg of previously purified DNA. Endotoxins, also known as lipopolysaccharides, are cell-membrane components of Gram-negative bacteria such as *E. coli*. Endotoxins are released during the lysis step of plasmid purification and significantly reduce transfection efficiencies in endotoxin sensitive cell lines. Therefore, the removal of endotoxins from plasmid preparations is often necessary prior to the use of the DNA in downstream applications. With Norgen's Endotoxin Removal Kit (Midi), endotoxin levels are efficiently reduced to 0.1 EU/mg DNA or less.



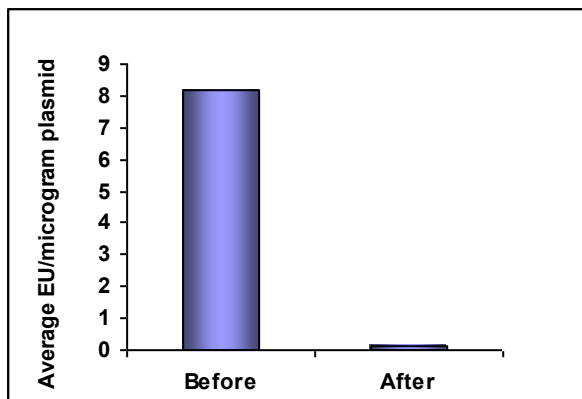
Each kit contains sufficient materials for 10 purifications, and preparation time for a single sample is approximately 30 minutes. Purification is based on spin column chromatography using Norgen's proprietary resin as the separation matrix. The plasmid DNA is preferentially purified from the contaminating endotoxins with this kit.

Kit Specifications			
Maximum DNA Input	200 µg	Average Recovery	> 90% (~ 80% in First Elution)
Maximum DNA Volume Input	0.75 µL	Time to Complete 10 Purifications	30 minutes
Final Endotoxin Level	≤ 0.1 EU/µg DNA		

### Endotoxin Removal Kit (Mini) Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of multiple samples in 30 minutes.
Endotoxin-free plasmid DNA	Using Norgen's Endotoxin Removal Kit (Mini), endotoxin levels are reduced to ≤ 0.1 EU / µg of plasmid DNA (Figure 1).
High recovery of input DNA	The average DNA recovery is > 90% of the input amount.
Recovered plasmid DNA is suitable for downstream applications	Purified plasmid DNA is fully compatible with sequencing, cloning and transfections.

## Endotoxin Removal Kit (Midi) - For DNA



**Figure 1. Efficiently Remove Endotoxins.**

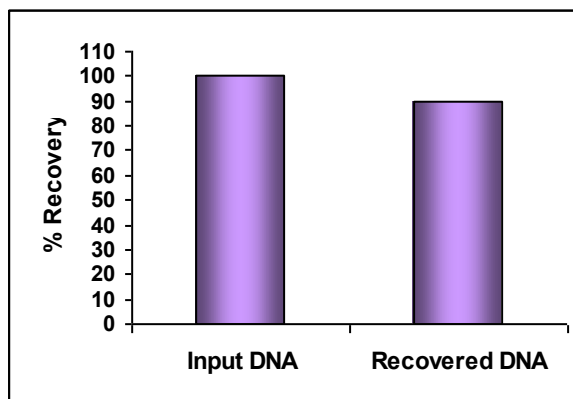
An input of 11  $\mu\text{g}$  of a plasmid in a 50  $\mu\text{L}$  volume with an endotoxin level of over 8 EU/ $\mu\text{g}$  was subjected to clean-up by Norgen's Endotoxin Removal Kit. One microliter of the input and the 50  $\mu\text{L}$  eluted DNA was diluted 1000-fold or 10 fold, respectively for a 100  $\mu\text{L}$  end-point Limulus Amebocyte Lysate test for endotoxin level. The endotoxin levels of the plasmid DNA sample were reduced from over 8 EU/ $\mu\text{g}$  to less than or equal to 0.1 EU/ $\mu\text{g}$  of plasmid DNA using Norgen's Endotoxin Removal Kit (Mini), with high DNA recovery also (see Figure 2).

### Endotoxin Removal Kit (Mini) Contents

1. Buffer SK
2. Wash Solution H
3. Wash Solution F
4. Elution Buffer I
5. Endotoxin Removal Solution
6. Precipitation Solution
7. Spin Columns (assembled with collection tubes)
8. Elution Tubes
9. Product Insert

### Shipping Conditions

The Endotoxin Removal Kit (Midi) is shipped at room temperature.



**Figure 2. High DNA Recovery.**

An input of 11  $\mu\text{g}$  of a plasmid in a 50  $\mu\text{L}$  volume with an endotoxin level of over 8 EU/ $\mu\text{g}$  was subjected to clean-up by Norgen's Endotoxin Removal Kit in triplicate. The 50  $\mu\text{L}$  DNA elutions was quantified by spectrophotometry. There is very little loss of DNA associated with using Norgen's Endotoxin Removal Kit (Mini). Recoveries of plasmid DNA are greater than 90% of the input amount when using this kit with efficient endotoxin removal (see Figure 1.)

### Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Microcentrifuge tubes
- 96 - 100% ethanol
- Isopropanol

### Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. All the reagents should remain stable for at least 1 year in their unopened containers.

Cat #	Description	Quantity
52200	Endotoxin Removal Kit (Midi) - For DNA	10 preps