

Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format)

Norgen's Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format) provides a fast, reliable and simple procedure for isolating circulating DNA from various amounts of plasma/serum ranging from 2 mL to 10 mL. Free-circulating DNA in plasma and serum has the potential to provide biomarkers for certain cancers and disease states, and includes tumor-specific extracellular DNA fragments in the blood and fetal DNA in maternal blood. Free-circulating DNA is usually present as short fragments of less than 1000 bp. The purified plasma/serum free-circulating DNA is eluted in an elution solution that is compatible with PCR, qPCR, methylation-sensitive PCR and Southern Blot analysis.



Norgen's Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format) provides an efficient method for the purification of these fragmented free-circulating DNA from human plasma or serum. Purification is based on the use of Norgen's proprietary resin as the separation matrix. The kit is able to isolate all sizes of circulating DNA. The slurry format provides an advantage over other available kits in that it does not require extension tubes for the purification of free-circulating DNA from large sample volumes. DNA can be isolated from either fresh or frozen samples using this kit. Typical yields of purified free-circulating DNA will vary depending on the input sample (1-100ng/mL circulating DNA in human plasma), with more concentrated samples tending to yield more free-circulating nucleic acids. Preparation time for a single sample is less than 45 minutes.

Kit Specifications			
Minimum Plasma/Serum Input	2 mL	Elution Volume	100 μ L
Maximum Plasma/Serum Input	10 mL	Time to Complete Purification	< 45 minutes

Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format) Benefits

Fast and easy processing	Rapid format allows for the processing of multiple samples in less than 45 minutes.
Versatile plasma and serum input volume	Isolate circulating DNA from 2 mL - 10 mL of plasma and serum samples. No requirement for extension tubes when processing larger sample volumes.
Concentrate circulating DNA	Circulating DNA present in input volumes of 2 mL - 10 mL are concentrated into a final elution volumes of 100 μ L.
Isolate inhibitor-free DNA	Purified DNA can be used in a number of sensitive downstream applications including PCR, qPCR, methylation-sensitive PCR and Southern Blot analysis.

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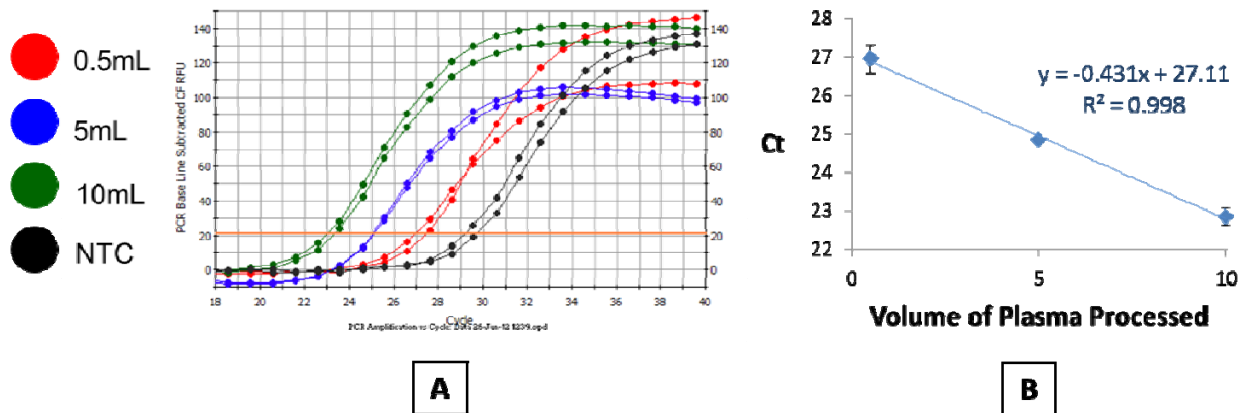


Figure 1. Scalability of the Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format). Three different volumes (0.5, 5 and 10 mL) were used to determine the scalability of the Norgen Plasma/Serum Circulating DNA Purification Maxi Kit. Three microliters of each elution was used in a 20 µL reaction containing 10 µL of Norgen’s 2X PCR Mastermix (Cat# 28007) spiked with SYBR green, 5 mM of the 5S primer pair, and nuclease-free water. The reaction was run on an iCycler iQ Realtime System (Bio-Rad). The samples were found to amplify according to the volume processed (Panel A), indicating that the isolation method is robust and sensitive. When the Ct values were plotted against the volume of plasma processed (Panel B), the equation of the line was found to be $y = -0.431x + 27.11$ and $R^2 = 0.998$, indicating an extremely linear relationship.

Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format) Contents:

1. Lysis Solution
2. Binding Solution I
3. Binding Solution 2
4. Binding Solution 3
5. Wash Solution
6. Elution Buffer
7. Midi Filter Spin Columns
8. Midi Collection and Elution Tubes
9. Spin Columns inserted into Collection Tubes
10. Elution Tubes
11. Product Insert

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- Centrifuge with a swinging bucket capable rotor capable of at least 2000 RPM
- 96-100% ethanol
- 60°C incubator
- 50 CC tubes

Storage Conditions

All buffers should be kept tightly sealed and stored at room temperature (15-25°C) for up to 1 year without showing any reduction in performance.

Shipping Conditions

The Plasma/Serum Circulating DNA Purification Maxi Kit (Slurry Format) is shipped at room temperature.

Cat #	Description	Quantity
51300	Plasma / Serum Circulating DNA Purification Maxi Kit (Slurry Format)	10 preps