

Blood DNA Preservation Buffer (3X)

Norgen's Blood DNA Preservation Buffer (3X) is a 3X aqueous storage buffer designed for rapid cellular lysis and subsequent preservation of DNA from fresh blood samples. The buffer prevents the growth of Gram-negative and Gram-positive bacteria and fungi, and also inactivates viruses allowing the resulting non-infectious samples to be handled and shipped safely. In addition, the buffer eliminates the need to immediately process or freeze samples and allows the samples to be shipped to centralized testing facilities at ambient temperature. The components of the buffer allow samples to be stored for one week under conditions where DNA degradation would occur normally. The buffer is intended to be used in clinical laboratories with the ability to preserve samples for use in downstream diagnostic assays.



Storage Details for Blood DNA Preservation Buffer (3X)

1. Norgen's Blood DNA Preservation Buffer is a 3X solution. One volume of the buffer is added to two volumes of fresh blood followed by mixing by inversion for ten times.
2. Specimens may be held or shipped to the testing laboratory at ambient temperature for up to 14 days. Specimens held longer should be kept at -20°C or lower until testing.
3. Storage at -20°C or lower is recommended for archival samples and will provide optimal preservation. The preservation buffer will freeze at -20°C . Samples can be stored indefinitely at -80°C .
4. Samples can be stored at room temperature (25°C) for up to two week without significant loss of DNA quality.
5. DNA has also been successfully isolated from samples stored at 37°C for one week.

Blood DNA Preservation Buffer (3X) Benefits

No need to immediately process samples	The buffer eliminates the need to immediately process or freeze samples.
DNA preservation for up to 14 days at room temperature	Intact, biologically active blood DNA has been isolated from samples stored in the Blood DNA Preservation Buffer (3X) for up to 14 days.
Ship blood samples at room temperature	Blood samples stored in the Blood DNA Preservation Buffer (3X) can be safely shipped at room temperature with no signs of DNA degradation.
Compatible with most DNA isolation methods	Blood DNA can be isolated from the preserved samples using a number of different methods, including Norgen's Blood DNA Isolation Kits (Cat# 18200, 31000, 31100 & 31200).
Available in 2 convenient sizes	Norgen's Blood DNA Preservation Buffer (3X) is available in 25 mL, and 100 mL sizes.

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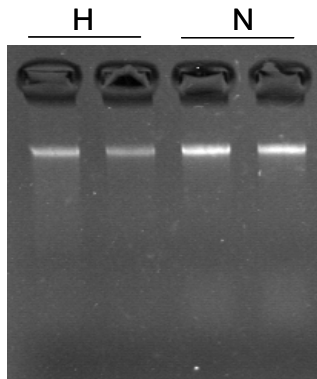


Figure 1. Integrity of DNA Isolated from Blood Samples Stored Overnight in Heparin and Norgen's Blood DNA Preservative. One hundred μL of blood collected in a heparin tube (H) and 150 μL of blood collected in Norgen's Blood DNA Preservation Buffer (3X) (100 μL blood + 50 μL preservative) (N) were stored overnight at 4°C. Blood DNA was then isolated from the samples using Norgen's RNA/DNA/Protein Purification Kit (Cat #23500), and 20 μL out of each 100 μL elution were loaded on 1% agarose gel. From observing the gel picture above it can be seen that the preserved blood using Norgen's buffer has a higher DNA yield and integrity.

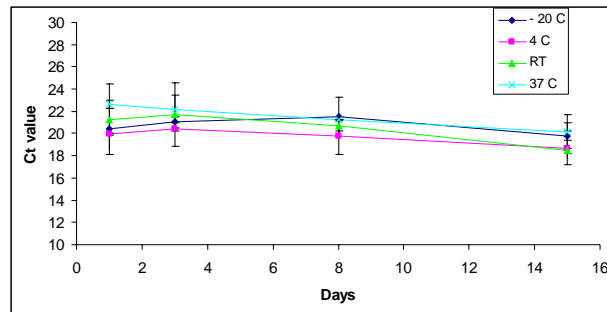


Figure 2. Stability of DNA Isolated from Preserved Blood Samples Stored up to 2 Weeks at Different Temperatures. A 0.5 mL sample of blood was mixed with 0.25 mL of Norgen's Blood DNA Preservation Buffer and stored at different temperatures (-20 °C, 4 °C, room temperature and 37 °C) for 2 weeks. Aliquots of the stored saliva were removed at various time points (1 day, 3 days, 8 days and 15 days) and the DNA was isolated using Norgen's Blood Genomic DNA Isolation Mini Kit (Cat #31000). The purified DNA was then used as the template in a real-time PCR using 5S specific primers. As indicated from the Ct value, all the DNA templates were successfully amplified without significant change in the Ct values over the 15 days.

Shelf Life and Handling

- All solutions should be kept tightly sealed and stored at room temperature (15 – 25 °C) for up to 1 year without any reduction in performance
- If any precipitation of the preservative is observed in the tubes, heat to 37°C to redissolve

Cat #	Description	Quantity
29111	Blood DNA Preservation Buffer (3X)	25 mL
29112	Blood DNA Preservation Buffer (3X)	100 mL