

MBT121

InstaDNA™ Quadri Card

Product Information

Kit Contents

Kit contents provided	Packing	
	25 NO	100 NO
InstaDNA™ Quadri Cards	25 nos.	4X25 nos.
Sterile Ziplock pouches (for individual micro card storage)	25 nos.	4X25 nos.
Sterile Silica Gel Packs (for individual micro card storage)	50 nos.	4X50 nos.

HiMedia's InstaDNA™ Quadri Card simplifies the isolation, purification and storage of nucleic acids for a variety of research and diagnostic applications. The card has four sample collection spots (1 inch diameter each) for multiple sample collection of the same specimen or for collecting multiple samples on a single card. Each circle can hold around 100µl of whole blood sample.

Features:

- Non-treated Specimen matrix, no added chemistry
- The specimen dries and the cells will lyse. As the cell lyses, the DNA is released and unravels into the matrix.

Strengths:

- Automatable for specimen handling systems
- No chemistry to interfere in processing
- Low cost compared to treated/coated cards
- Quantitative
- Fantastic for long term blood storage

Applications:

- Forensics
- Transgenic identification
- Plasmid screening

- Food and agriculture testing
- Drug discovery
- Genomics
- STR analysis
- Animal identification
- Whole genome amplification

Storage

The InstaDNA™ Quadri card should be stored at 15-25°C (in the packing provided). The card is stable for 2 years when stored under recommended conditions.

Sample Protection and Handling

Always wear gloves to avoid contamination of InstaDNA™ Quadri cards. Please follow your laboratories standard operating protocols and precautions when handling biological specimens.

Description

InstaDNA™ Quadri cards are designed for room temperature collection, shipment, archiving of nucleic acids from variety of biological samples for PCR analysis. These include (but are not limited to) blood, buccal cells, tissue, cultured cells, microorganisms and plant tissue.

Use: To use InstaDNA™ Quadri cards, simply apply sample (liquid or pressed tissue), air dry at room temperature, and then remove a small punch (the size of which needs to be determined by application). The punch can be used without washing for direct amplification. The InstaDNA™ Quadri cards can also be prepared in the traditional method of sample preparation (see below).

NOTE: After sample application, store the InstaDNA™ Quadri card in the sterile ziplock with silica gel pack.

Procedures

I) Application of Blood Samples (fresh whole blood or with anticoagulants):

1. Label the InstaDNA™ Quadri card with the appropriate sample information and identification.
2. Drop the blood onto the card in a circular motion within the circle area. Avoid repeated dropping the blood in the same location of the liquid sample. Also, do not rub or smear the blood onto the card.
3. Dried blood spots will appear darker than freshly spotted ones. Let the cards dry thoroughly prior to any sample punching or processing.
4. After drying completely, samples applied to the InstaDNA™ Quadri card are now ready either for immediate processing or archiving.
5. Drying time may vary due to humidity and conditions; please follow your laboratories standard operating procedures and guidelines.

6. Proceed to **Downstream DNA Analysis** (below).

II) Collection and transfer of buccal cell samples:

1. Place the InstaDNA™ Quadri card on a clean, dry, flat surface. Label the card with appropriate sample information and identification.
2. Use a sterile Foam Tipped Swab (Product Code: PW1174) (not provided). Remove the protective packaging from the swab.
3. Hold the plastic handle of the swab, place the foam tip in the mouth and run the foam tip along the fold of the cheek, by the gums and under the tongue, collecting the cells from the sides of the walls of the mouth. Rub one side of the foam tip on the inside of the cheek for 15 seconds. Repeat using the opposite side of the foam tip for the other cheek. Remove the swab from the mouth.
4. Press the flat surface of the foam tip within the sample circle area. Without lifting the foam tip from the card, squeeze the tip using a side-to-side rocking motion, at least three times to completely saturate the collection circle area. Turn the swab over and repeat with the other side of the foam tip within the same circle.

NOTE: Circle the area of the sample location with a ballpoint pen or pencil. If buccal cells are to be applied to more than one InstaDNA™ Quadri circle area, use a new swab.

5. After drying completely, samples applied to the InstaDNA™ Quadri card are now ready either for immediate processing or archiving.
6. Drying time may vary due to humidity and conditions; please follow your laboratories standard operating procedures and guidelines.

NOTE: Other swabs can also be used, such as the Sterile Polyester Tipped Swab (Product Code: PW1180).

7. Proceed to **Downstream DNA Analysis** (below).

III) Application of Bacterial Samples (for bacterial genomic DNA) Bacterial colonies:

1. Concentration of sample may vary per sample type; please follow your laboratories standard operating procedures and guidelines.
2. Apply 5–10 µl of bacterial suspension to the InstaDNA™ Quadri card and circle the area of application with a ballpoint pen or pencil.
3. After drying completely, samples applied to the card are now ready either for immediate processing or archiving.
4. Drying time may vary due to humidity and conditions; please follow your laboratories standard operating procedures and guidelines
5. Proceed to **Downstream DNA Analysis** (below).

IV) Collection of Tissue/Cell culture samples:

1. Tissue culture cells can be applied to InstaDNA™ Quadri Cards at a concentration of >300 cells/μl for nucleic acid analysis.
2. After drying completely, samples applied to the InstaDNA™ Quadri card are now ready either for immediate processing or archiving.
3. Drying time may vary due to humidity and conditions; please follow your laboratories standard operating procedures and guidelines.
4. Proceed to **Downstream DNA Analysis** (below).

V) Collection of Plant samples (Direct leaf press):

1. Place leaf material directly onto a circle of the InstaDNA™ Quadri card. Place a piece of Parafilm® (Product code: LA018) (not provided) or similar plastic over the leaf.
2. Apply pressure &/or tap the leaf area with a blunt instrument such as a pestle or small hammer.
3. When the extract is seen through to the back of the InstaDNA™ Quadri card, the collection process is finished.
4. After drying completely, samples applied to the InstaDNA™ Quadri cards are now ready either for immediate processing or archiving.
5. Drying time may vary due to humidity and conditions please follow your laboratories standard operating procedures and guidelines.
6. Proceed to **Downstream DNA Analysis** (below).

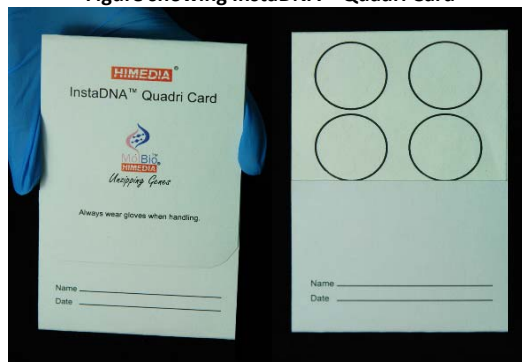
Downstream DNA Analysis (Punch Processing):

Materials needed but not provided:

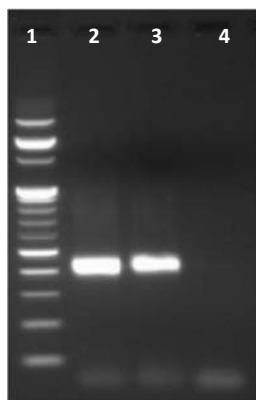
- 1) Proteinase K Solution (Product code: DS0013)
 - 2) Wash Solution (WS) (Product code: DS0012)
 - 3) TE Buffer (Product code: DS0086)
 - 4) Heating block
1. Place punch or cutting of sample on the InstaDNA™ Quadri card into the container.
 2. The initial wash step requires gentle pipetting in 150 μl distilled water of the sample punch in a 0.2ml PCR tube. Remove the wash solution and discard.
 3. Add 5μl of Proteinase K Solution (20 mg/ml) to 150 μl of diluted Wash Solution (WS). Mix with gentle pipetting & incubate the sample punch for 5 minutes at 65°C. Discard the wash solution.
 4. Add another 150 μl of diluted Wash Solution (WS) to the sample punch & mix by gentle pipetting. Discard the wash solution.
 5. Add 200 μl of TE Buffer & mix by gentle pipetting. Discard the rinse solution.

6. Dry the sample punch at 56-65°C until dry (drying takes minimum 10 minutes).
7. Proceed to PCR amplification according to the laboratory's Standard Operating Procedures for sample.

Figure showing InstaDNA™ Quadri Card



Representative data of Blood DNA PCR using InstaDNA™ Quadri Micro card



Lane 1- 100 bp Ladder
Lane 2- Positive control (1µl blood DNA)
Lane 3- Amplified blood DNA from blood sample spotted on InstaDNA™ Quadri Card
Lane 4- Negative control

Technical Assistance

At HiMedia, we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at mb@himedialabs.com.

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