

FTA™ Cards

Whether you're in a lab or deep in a rain forest, Whatman™ FTA provides a remarkably easy way to collect and isolate nucleic acid samples for analysis. Simply apply virtually any type of biological sample to the FTA matrix, and the nucleic acids are instantly captured and stabilized. Store samples, including clones, at room temperature and analyze whenever you're ready.

Features and benefits

- **Simple collection:** Protection of nucleic acids from degradation at room temperature allows for convenient collection in the lab or the field.
- **Room temperature storage:** Nucleic acids are automatically stabilized without the need for refrigeration.
- **Fast purification:** Nucleic acids are purified on the FTA Card in three simple steps, all in a single tube at room temperature. DNA remains immobilized on the matrix, and ready for PCR or other amplification techniques.
- **Automatable:** Automation speeds the handling of multiple FTA punches and standardizes DNA purification. Punches can be easily washed and prepared for PCR on a variety of liquid handling instruments.



Applications

- Blood, plant, insect, viral and bacterial analysis
- Genetic identification
- Bacterial clone storage
- Biosafety, food safety and environmental analysis
- HLA typing
- Animal breeding studies
- Molecular identification



FTA—A highly flexible technology used widely in a range of industries

Whatman FTA technology, from GE Healthcare, has been embraced by a wide range of industries across the globe. Pharmaceutical companies use FTA to collect and archive human DNA samples for clinical drug trials. Law enforcement agencies use FTA to collect and archive DNA samples from convicted felons. Nature conservationists use FTA to collect bird DNA from jet engines to determine the flight patterns of specific species. Scientists hunting for new plant species use FTA in the field to collect and safely transport samples. Governmental agencies use FTA to sample food products while ranchers use FTA to track diseases within multiple herd generations. While the range of applications is large, they all share a common element: simplicity. Whatman FTA helps scientists speed their research and achieve their goals.

Use with virtually any cell type

The following is a partial list of the cell types that can be applied to FTA Cards:

- Blood
- Cultured cells
- Buccal cells
- Plant tissue
- Bacteria
- Plasmids
- Microorganisms
- Solid tissue
- Viral particles
- M13 plaques

Whatman FTA Cards are available in either white or pink (Indicating) formats. White FTA Cards are recommended for blood samples, plant tissues, and other easily identified samples. Indicating FTA Cards are pink and turn white upon sample addition. Indicating FTA Cards are recommended for buccal cells, cultured cells, and other clear samples.

Store nucleic acids at room temperature for years

Genomic DNA stored on FTA Cards at room temperature for more than 17.5 yr has been successfully amplified by PCR. No other product can make that claim. FTA Cards offer a compact room temperature storage system that reduces the need for precious freezer space, improves sample accessibility, and reduces storage costs.

Captured nucleic acid is ready for downstream applications in less than 30 min

Captured nucleic acid is ready for purification when you are. Just take a sample disk from the FTA Card, wash with FTA Purification Reagent and rinse with TE⁻¹ buffer. The washed disk is ready to use in applications such as PCR, RFLP analysis and WGA.

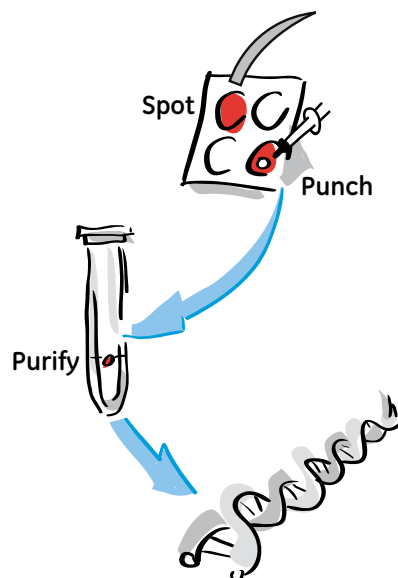
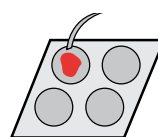
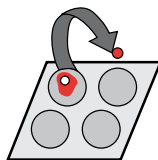


Fig 1. Three easy steps to pure nucleic acids.



Sample application

Apply specimen and allow to dry completely.



Disk removal

Punch a disk out of the sample area on the FTA Card.



FTA purification reagent washes

Place the disk in PCR tube and wash three times with FTA Purification Reagent. Discard used reagent after each wash.



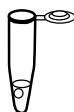
TE⁻¹ rinses

Wash twice with TE⁻¹ buffer (10 mM Tris, pH 8.0) and discard used buffer after each wash.



Drying step

Dry disk in PCR tube.



Direct to PCR

Add PCR master mix directly to the disk and amplify.

Fig 2. FTA DNA purification protocol.

FTA Cards

FTA Cards are available in 1, 2, 3, and 4 part configurations. Custom configurations are available upon request. Call 1-800-WHATMAN for details.

FTA Classic Card

Four sample areas for storage of up to 500 μ l whole blood or 100 μ l plant homogenate per card. Convenient for multiple applications of the same specimen or collection of multiple animal or plant samples. Also available in Indicating (pink) FTA Format.

FTA Mini Card

Two sample areas for storage of up to 250 μ l whole blood or 50 μ l plant homogenate per card. Convenient for protocols that require different locations for testing and archiving samples. Also available in Indicating (pink) FTA format.

FTA Micro Card

One sample area for storage of up to 125 μ l whole blood or 25 μ l plant homogenate per card. Recommended when only one sample is needed. Also available in Indicating (pink) FTA format.

FTA Gene Card

Three sample areas in a chipboard frame for storage of up to 225 μ l whole blood or 30 μ l plant homogenate per card. Can be run in most automatic dispensing/pipetting systems when used with the FTA Gene Card Tray.

PlantSaver™ FTA Card

Plant friendly FTA card, in a Classic Card format. Features a laminated flap that allows you to vigorously pound the plant sample into the FTA matrix without damaging the FTA Card.

CloneSaver™ Card

Designed for the collection, storage, and purification of plasmid and BAC DNA from bacterial clones. DNA is stable at room temperature for at least five years (real-time data). Available in a 96-well format for high throughput applications.

EasiCollect™ System

A novel development in the process of collecting buccal cell samples for genetic analysis. This system allows the uniform collection and application of cells to the surface of an FTA Card for the capture of DNA. An optimized foam collection surface has been specifically selected for its ability to capture the largest number of cells to overcome individual differences. The FTA card chosen for this device is compatible with manual or automated punching systems which encompass all degrees of laboratory throughput.

FTA Reagent, accessories and kits

Removes heme, PCR inhibitors, and other potential contaminants to ensure superior quality DNA for downstream analysis.

FTA Gene Card Tray

Holds two FTA Gene Cards for use in automatic liquid handling systems.

FTA Kit

Includes a 25-card supply of FTA Micro Cards, two vials of purification reagent (25 ml), two Harris Uni-Core Punches, a cutting mat, and instructions.

FTA Plant Kit

Includes 20 FTA PlantSaver Cards, 2.0 mm Uni-Core Punch with cutting mat, 2 x 25 ml FTA Purification Reagent, 1 pair of nitrile gloves, 1 cutting mat, and round bottom test tube for sample crushing, instructions.

Sterile Foam Tipped Applicator

Easy-to-use applicator for the noninvasive collection and transfer of buccal cells to FTA Cards.

Storage Desiccant Packets

Ensure that FTA Cards remain dry during transport or storage. Contains indicator that changes color to verify moisture absorption.

Multi-Barrier Pouches

For transporting or storing FTA Cards. Protects cards from environmental contamination. Tamper-evident seal maintains sample security for forensics samples. A resealable pouch is also available when multiple access to FTA cards is needed.

Harris Micro Punches, Disposable Uni-Core Punches and Cutting Mat

For the precise sample disk removal from FTA Cards. The 1.2 mm Punches are recommended for use with whole blood and samples with high DNA content. The 2.0 mm Punches are recommended for use with buccal cells, plasmids and samples with lower DNA content.



FTA Cards and Indicating FTA Cards

Ordering information

Catalog number	Description	Cards/ pack	Sample areas/card	Maximum volume/ sample area (µl)	Maximum total volume/card (µl)
WB 120205	FTA Classic Card	100	4	125	500
WB 120206	Indicating FTA Classic Card ¹	100	4	125	500
WB 120055	FTA Mini Card	100	2	125	250
WB 120056	Indicating FTA Mini Card ¹	100	2	125	250
WB 120210	FTA Micro Card	100	1	125	125
WB 120211	Indicating FTA Micro Card ¹	100	1	125	125
WB 120208	FTA Gene Card ²	100	3	75	225
WB 120065	PlantSaver Card ³	100	4	25	100
WB 120028	CloneSaver Card	5	96	5	480
WB 120462	EasiCollect	50	1	125	125

¹ Indicating FTA Cards change color from pink to white when sample is applied and are recommended for use with clear samples.

² FTA Gene Cards are compatible with automated liquid sampling systems when used with FTA Gene Card Trays.

³ Plant homogenate; 10 mg/50 µl PBS.

FTA Reagent, kits and accessories

Ordering information

Catalog Number	Description	Qty/case
WB 120204	FTA Purification Reagent	500 ml
WB 100030	FTA Gene Card Trays	20
WB 120067	FTA Kit	1
WB 120068	FTA Plant Kit	1
WB 100032	Sterile Foam Tipped Applicator Swabs	100
WB 100003	Desiccant (1 g)	1000
WB 100036	Multi-Barrier Pouch, Small (for Mini, Micro and Gene Cards)	100
WB 100037	Multi-Barrier Pouch, Large (for Classic Cards)	100
WB 100024	CloneSaver Resealable Multi-Barrier Pouch	50
WB 100005	Harris Micro Punch 1.2 mm (with Mat)	1
WB 100028	Harris Uni-Core Disposable 1.25mm Punches (with Mat)	4
WB 100007	Harris Micro Punch 2.0 mm (with Mat)	1
WB 100029	Harris Uni-Core Disposable 2.0 mm Punches (with Mat)	4
WB 100020	Replacement Cutting Mat	1
WB 100006	Replacement Tip 1.2 mm	1
WB 100008	Replacement Tip 2.0 mm	1

GE, imagination at work and GE monogram are trademarks of General Electric Company.

CloneSaver, EasiCollect, FTA, PlantSaver, and Whatman are trademarks of GE Healthcare companies.

© 2003-2010 General Electric Company – All rights reserved.
Previously published March 2003.

All goods and services are sold subject to the terms and conditions of sale of the company within GE Healthcare which supplies them. A copy of these terms and conditions is available on request. Contact your local GE Healthcare Representative for the most current information.

GE Healthcare Bio-Sciences AB
Björkgatan 30
751 84 Uppsala
Sweden

GE Healthcare Europe, GmbH
Munzinger Strasse 5, D-79111 Freiburg
Germany

GE Healthcare Bio-Sciences Corp.
800 Centennial Avenue
Piscataway, NJ 08855-1327
USA

GE Healthcare Japan Corporation
Sanken Bldg., 3-25-1, Hyakunincho
Shinjuku-ku, Tokyo 169-0073
Japan

www.gelifesciences.com/whatman

GE Healthcare UK Limited
Amersham Place
Little Chalfont
Buckinghamshire, HP7 9NA, UK

