TaqGen®

Product Manual

Taqgen® Dried Blood Card DNA Purification 50 preps
Cat no: MSA950

The Taqgen® Dried Blood Card DNA Purification Kit is suitable for DNA Extraction from Dried Blood spot (DBS) for clinical, forensic analysis, genetic testing, and biomedical research.

For research use only.

Not for use in diagnostic procedures.

Description

The Taqgen® Dried Blood Card DNA Purification, designed with cutting-edge spin column technology to provide a simple, efficient, and reliable method for extracting high-quality DNA from dried blood spots. Ideal for forensic analysis, genetic testing, and biomedical research, this kit ensures you get the most accurate and reproducible results from your samples.

Product Components and Storage Conditions

Product	Storage condition	Total	Vol/Reaction For 2 encircled spot (DBS)
Proteinase K	2°–8°C	1.2mL	20 µL
DBS Digestion Buffer (DDB)	RT	30 ml	280 µL
Lysis Buffer	RT	25 ml	200 µL
Wash Buffer WB1	RT	10 ml conc	500 µL
Wash Buffer WB2	RT	10 ml conc	500 µL
Elution Buffer	RT	20ml	50-100 µL
Spin Columns	RT	50 pc	1

Reconstitution of buffers/reagents:

Buffer/Enzyme name	Procedure
Proteinase K Lyophilized (20mg)	Add 1.2 mL Proteinase buffer
Wash Buffer WB1 (10 ml conc)	Add 30 ml 100% Ethanol
Wash Buffer WB2 (10 ml conc)	Add 30 ml 100% Ethanol

Storage Conditions: Store the Taqgen® Dried Blood Card DNA Purification Kit at 15°–30°C except the proteinase K after reconstitute (2°–8°C).

Safety Information: The Taqgen® Dried Blood Card DNA Purification kit contains guanidine hydrochloride and proteinase K, should be considered harmful and irritants.

Caution: Handle buffer with care. Bleach reacts with guanidine hydrochoride and should not be added to any sample waste.

Before You Begin

Poorly spotted blood card will yield low DNA so that require more starting material. Cut out 2 circles from a dried blood spot with a paper puncher and place in a clean microcentrifuge tube.

Note: Up to whole 2 circles can be used to obtain higher DNA yield in a single extraction.

Standard protocol for Dried Blood spot (2 circle)

1. **Sample Preparation**
   a. Cut out 2 circles from a dried blood card with a paper puncher or cut into 6 pieces per circle (total 12) and place in a clean 1.5 mL microcentrifuge tube.
2. **Lyse cells**
   a. Add **280µL Genomic Digestion Buffer (GDB)** and **20µL Proteinase K** Solution. Vortex to mix thoroughly.
   b. Incubate at 56°C for 15 min in a water bath. Afterwards, centrifuge the mixture for 5 min (> 10,000 x g) to pellet contaminants and cell debris.
3. **Adjust DNA binding conditions**
   a. Transfer 200µL clear supernatant from step 2 into a 1.5 ml microcentrifuge tube. Do not disturb or transfer any of the insoluble pellet.
   b. Add **200µL Lysis Buffer**. Vortex to mix thoroughly
      Note: A wispy precipitate may form upon the addition of Lysis Buffer. This does not interfere with DNA recovery.
   c. Incubate at room temperature for 3 minutes.
   d. Add 200µL of 100% ethanol.
4. **Bind DNA**
   a. For each sample, place one **SpinColumn** into a Collection Tube. Apply the sample to the column. Centrifuge for **1 min at 8000 rpm (6000 x g)**.Discard the filtrate and reuse the collection tube.
      Note: Gently transfer the lysate/binding buffer mix (~600 µl) to a gDNA Purification Column pre-inserted into a collection tube, without touching the upper column area. Avoid touching the upper have formed during lysis. Any material that touches the upper area of the column, including any foam, may lead to salt contamination in the eluate
5. **Wash and dry silica membrane**
   a. Add **500µL Wash Buffer WB1**. Close the cap and invert a few times, so that the wash buffer reaches the cap. Centrifuge for **1 min at 8000 rpm (6000 x g)**. Discard the filtrate.
   b. Add **500µL Wash Buffer WB2**. Centrifuge **1 min for 8000 rpm (6000 x g)**. Discard the filtrate.
   c. Centrifuge for **2 min at 14,000 rpm (20,000 x g).**
      Note: Residual ethanol is removed during this step.
6. **Elute DNA**
   a. Place the Spin Column into a 1.5 mL microcentrifuge. Add **100µL Elution Buffer**. Incubate at room temperature for 1 min. Centrifuge **1 min at 8000 rpm (6000 x g).**