DNAstable Plus Quick Reference Protocol

For sample recovery, see reverse

DNAstable Plus is a liquid stabilization reagent for short-term preservation and a liquid-to-dry (LD) stabilization reagent for long-term storage.

Sample Application and Drying

- Add 25% (vol:vol) of the reagent to the DNA sample (≤**250µg)**, stored in water or any aqueous buffer (e.g., 25µl of DNAstable Plus to 100µl of DNA).
- Gently pipette up and down to mix. Avoid forming bubbles.
- **Liquid Storage**: Store samples for up to 12 months at room temperature or DNA can be used directly in downstream applications.
- **Liquid-to-Dry (LD) Storage:** Dry sample in a laminar flow hood. For faster drying, Vacufuge can be used at lowest temperature setting (25-30°C).
- Complete drying of sample can be tested by gently touching the dried matrix with a sterile pipette tip. A fully dried sample will not stick to the tip. In the event of incomplete drying extend drying time.
- Cap tube or cover plate with adhesive seals.

Sample Storage Conditions

Store stabilized DNA samples at room temperature (15-25°C). Protect samples stored in the dry format from moisture by one of the following methods:

1) Storing in a dry storage cabinet, or
2) Heat seal the moisture barrier bag containing the dried sample and a desiccant packet.

The recommended humidity level is ≤**40%** relative humidity.

Average Drying Times **(hours)** in a Laminar Flow Hood*

Sample Volume (µl)	Tube	96-well plate	384-well plate
5	4	4	8
6-10	6	6	12
11-20	12	8	24
21-50	28	18	NR
51-100	NR	24	NR
101-125	NR	24	NR

*Drying times may vary depending on the humidity level in the laboratory. Recommended drying times were determined at 50% relative humidity (RH). Typical HVAC controlled facilities have 40-50% RH. NR: Not Recommended.

Average Drying Times **(minutes)** in a Vacufuge at Low Temperature (25-30˚C)**

Sample Volume (µl)	Tube	96-well plate	384-well plate
5	10	15	80
6-10	15	15	120
11-20	30	30	180
21-50	45	90	360
51-125	60	150	—
126-150	75	180	—

**Drying times may vary depending on model and condition of Vacufuge and vacuum pump used.

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Sample Recovery: Just Add Water

- For best yields, add equal volume of H_2O or other liquid to the tube or well containing stored sample (e.g., 100µl of H_2O to 100µl of sample). Recovery with smaller volumes will require additional dilution before usage in downstream applications.
- Incubate for 15 minutes with an orbital shaker or pipette gently to ensure complete mixing.
- Use directly in downstream application.
- Rehydrated samples can be re-dried without loss of efficient sample stabilization. If needed, we recommend repeating the rehydration/drying process up to (5) times.

Samples can be used directly in downstream applications:

- PCR
- qPCR (dilute sample by 3X)
- Sequencing
- Restriction Analysis
- Cloning
- Genotyping, etc

For more information, visit www.biomatrica.com

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