

## DNA SampleGard™ FAQ's

**1. How much DNA can I store?**

Picogram range to 30 ug in the current format.

**2. Is there any UV Protection?**

Yes. We have conducted experiments comparing SampleMatrix™-stored DNA to DNA without protection and found that after exposure to UVC the unprotected DNA was completely degraded whereas the DNA stored in SampleMatrix was not degraded. Please refer to our application note outlining DNA stability under UVC exposure at [www.biomatrica.com/application/application.html](http://www.biomatrica.com/application/application.html).

**3. What happens if I put a sample stored with SampleMatrix in a freezer (-20°C)? Or at 4°C?**

This is not necessary nor is it recommended. Samples stored with SampleMatrix may be conveniently and cost-effectively stored at room temperature.

**4. For how long do you have data?**

Two (2) years at room temperature and projections of over 5 years through accelerated aging studies.

**5. If I want to purify the matrix away from my sample, how do I do that?**

It is not necessary, but it could be done through passage in a Qiagen miniprep column.

**6. What applications can I use my sample for?**

Samples can be used immediately for the following applications:

- Transformation
- PCR
- Agarose gel electrophoresis
- Restriction enzyme digestion
- Transfection
- Sequencing
- STR
- Whole genome amplification
- Genotyping
- Shipping at room temperature

**7. What happens to my sample in a humid environment? How does humidity affect storage?**

As with any DNA sample there can be degradation with humidity plus high temperature. We suggest storing in a dry environment and will be providing moisture barrier bags in the future.

**8. Is the Eppendorf tube really air-tight?**

Yes. Although polypropylene is a porous substance, all of our studies show that there is no leakage. We have most recently looked at this aspect with water and found no humidity entering the tubes when submerged over time.

**9. Should I mix the sample after it hydrates the matrix?**

This is not necessary.

**10. What is the largest size DNA that SampleMatrix has stored?**

To date, genomic DNA preparations.

**11. In what journals has information on your technology been published?**

An article is currently in review for Nature Methods. Please see our application notes at [www.biomatrica.com/application/application.html](http://www.biomatrica.com/application/application.html).

**12. Is there a difference between the storage of plasmid and genomic DNA?**

No.

**13. Is there a difference in the storage of plasmids of different size? (e.g. 3kb vs 13kb)**

No.

**14. Is there a shelf life to unopened/unused tubes?**

No. The color of SampleMatrix may change over time but this does not impact stability of the medium or DNA storage.

**15. Once stored is the sample reusable?**

We suggest aliquoting one sample across multiple wells so that there is no possible contamination or changes in concentration of SampleMatrix or DNA sample. It is possible to hydrate and redry a few times if necessary. This will change the ratio of SampleMatrix to sample and we cannot guarantee the product.

**16. Can the aluminum foil be replaced after samples are deposited and dried?**

Yes.

**17. When several samples are loaded into a new plate, how is it possible to protect the unused wells?**

In this case it is best to use a seal that is in strips available from Excel Scientific ([www.excelscientific.com](http://www.excelscientific.com)) and follow these steps:

- Cut the seal over the columns to be used (a razor blade works well),
- Deposit the DNA samples,
- Air dry, and
- Cover with strips seals.

**18. What is the maximum volume I can spot in a well?**

We suggest storing up to 20ul of the DNA sample. You should consider concentrating DNA in larger volumes prior to storage in SampleMatrix. Please note that the more liquid you spot, the longer it will take to dry.

**19. Can I store other molecules such as RNA or enzymes/proteins?**

Currently, the SampleMatrix technology is being marketed and sold for DNA (plasmid or genomic) storage. Biomatrix, Inc. is developing other novel products which will be available shortly.

**20. Can I store BAC and YAC clones in SampleMatrix?**

Yes.

**21. Can I store oligos, primers and fragments of DNA in SampleMatrix?**

Yes.

**22. Can I use a portion of a rehydrated DNA well and redry the remainder for future use? How often can I retrieve DNA from the same well?**

We do not recommend multiple uses of the same well due to the possibility of contamination. We suggest drying down the needed amounts in each well and using the entire well for each downstream application. If really needed, a well can be hydrated and used partially and redried. We do not recommend this more than 3 times, since the dilution of the SampleMatrix no longer assures the expected protection.

**BIOMATRICA, INC.**

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