



ReadyDry PCR™ Instructions for Use

For drying and ambient
preservation of PCR assay reagents

Catalog No. 63301-013



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Stabilizers are labeled A, B, C, D, E, F, G, and H.

Shipping Temperature: All kit components are shipped at ambient temperature.

Storage: Store at 2-8°C for up to 1 year.

III. Safety and Warnings

Practice safe laboratory procedures as mandated by your lab. Wear gloves, safety glasses and lab coat when handling this product. Avoid skin contact with all reagents. In case of skin contact, wash thoroughly with water.

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IV. Recommendations for Custom PCR Assays

A. Drying and preservation of custom assay reagents

The instructions below are for PCR reactions of 10-20µl in volume. For larger reactions, scale-up might be required.

1. Add 5µl of stabilizer (A, B, C, D, E, F, G or H) or nuclease-free water (Non-Protected, NP) to PCR tubes or wells. Example layouts are shown for testing ReadyDry PCR assay stabilizers in Figure 1. Format #1 (top, blue) corresponds to drying the complete assay. Format #2 (bottom, orange) corresponds to drying the unstable assay components (Taq Polymerase, dNTPs, primer/probe sets). For each

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I. Product Summary

ReadyDry PCR is designed for dry preservation of PCR assays and reagents. It consists of 8 proprietary reagents that can be directly combined with individual components or complete PCR-based assays and, through simple air drying, allow for the ambient preservation of these reagents with extended shelf-life. An optional process control assay validated by Biomātrica is available upon request.

II. Contents and Storage

ReadyDry PCR is composed of the following components, enough to dry and preserve 200 PCR assays (up to 20µl reactions) per stabilizer:

8 tubes of ReadyDry PCR Stabilizers →

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format, leave an empty column for Fresh Controls.

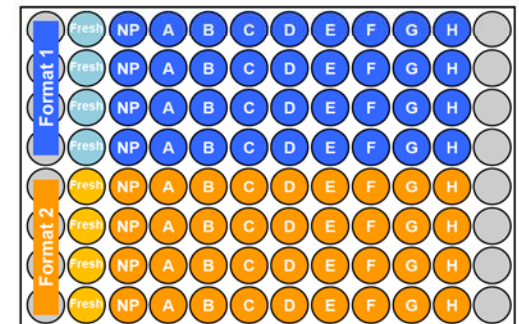


Figure 1: Example layout for drying assay components in 2 different formats with 8 different stabilizers plus controls.

2. Add up to 15µl of PCR assay components to be dried to all tubes and mix by pipetting several times.

Note: Smaller drying volumes will result in faster drying and in many cases better

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performance. It is best to remove any unnecessary water content for drying purposes.

3. Dry the uncovered tubes/plate using a vacuum centrifuge or airflow evaporator.

Note: for Eppendorf Vacufuge Plus, use setting of "V-AQ", temperature control setting of 30°C. The drying time could be 30-120 minutes depending on the starting volume. For SPEdry96, use temperature setting of 22°C and a flow rate of 70 LPM. Drying time is approximately 30-45 minutes depending on the starting volume.

4. Confirm that samples are dry by gently touching a sample with a pipette tip. If any material transfers to the tip, continue drying for an additional 20 minutes and test again. If no material transfers to the

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3. Run and detect samples on chosen thermocycler platform, following custom assay PCR conditions.

C. Results Analysis

A comparison of the fresh mix positive control and the dried, non-protected assay or reagents determines the assay stability under the testing conditions. If no difference is observed between these two sets of samples, the dried assay requires more stress (e.g. longer incubation times, higher incubation temperatures, or other modifications) in order to test the effectiveness of the Biomatrix stabilizers.

Performance of assays or reagents dried with stabilizers A-H is compared to the performance of the non-protected assay or reagents, in order to determine improvement in stability. In some cases, improvement

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pipette tip, samples are sufficiently dry and can be stored.

5. Cover the dry samples with caps or a foil plate seal and place inside a foil pouch with desiccant.
6. Store the sealed pouch at the appropriate temperature. Biomatrix recommends storing sets of samples at both 25°C and 45°C.

B. Rehydration of custom assay samples

This protocol exemplifies rehydration for 20µl PCR reactions of both dry assay formats #1 and #2 described in Section A (plus Fresh Control samples, Column 2 on Fig. 1). For multiple samples or different PCR reaction volumes, scale volumes accordingly.

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may occur but assay performance may fall short of the frozen mix positive control. This indicates potential for stabilization, but optimization of the stabilizer and/or workflow is likely required.

If no improvement in stability is observed with any of the 8 included stabilizers, testing of a broader selection of stabilizers may be required in order to identify a solution for ambient preservation of the PCR assay or reagents. Please contact Biomatrix for more information.

V. Technical Assistance

Biomatrix, Inc. takes pride in providing efficient quality technical support. Biomatrix's Technical Service Department is staffed by experienced scientists with extensive practical and theoretical expertise

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1. Prepare rehydration mixes #1 and #2 on ice, according to Table 1.

	Template	Buffers, salts	Frozen components (Taq, dNTPs, dyes, primers, probes, buffers, salts, etc)	Nuclease-free water
Format #1 Rehydration Mix	X µl	-		20-X µl
Format #2 Rehydration Mix	X µl	Y µl		20-(X+Y) µl
Frozen Mix	X µl	-	Z µl	20-(X+Z) µl

Table 1: Composition of rehydration mixes for custom assay.

2. Add respective rehydration mixes to all the dry PCR assays/reagents and Fresh Mix to empty tubes/wells. Mix by pipetting several times and seal the tubes/wells.

Note: Rehydration can be performed at room temperature. Samples should rehydrate within 1 minute of addition of the rehydration solution.

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in molecular biology and the use of Biomatrix's biostability and storage products. Please contact Biomatrix directly with any questions regarding ReadyDry technology, product use, or general matters.

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