

PRODUCT SHEET



Biomeme

LyoDNA™ 2.0 MASTER MIX BULK VIAL

For Research Use Only. Not for diagnostic procedures.

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CONTENTS

Contents	2
Safety Warning.....	4
Kit Contents.....	4
Technical Characteristics	4
Reconstitution Volumes.....	5
Example protocols.....	5
Storage	6
Disclaimer.....	7



LyoDNA™ 2.0 MASTER MIX

Biomeme's **LyoDNA™ 2.0 Master Mix** is a lyophilized master mix containing core reaction components for fluorescent probe-based polymerase chain reaction (PCR) analysis of DNA targets.

A proprietary blend of stabilizers and macromolecules, Biomeme's LyoDNA 2.0 Master Mix includes reaction buffer, magnesium ions, dNTP nucleotides and Taq DNA polymerase. For a complete PCR reaction mix, the master mix is added to oligonucleotide primers and probe(s) specific to the DNA target(s).

It is supplied as a dry reagent to be reconstituted in water. A proprietary freeze-drying process ensures the Master Mix remains stable at ambient temperatures and does not require refrigeration for transport or storage. Formulated for 5' nuclease signaling, this Master Mix provides 8mM magnesium ions in the final reaction mix. For additional Mg⁺⁺, MgCl₂ solution (not supplied) can be supplemented for diluent.

SAFETY WARNING

When working with our products, always wear appropriate personal protective equipment (PPE) (e.g., lab coat, disposable gloves with adequate chemical resistance, mouth/face protection, goggles, etc.) For more information, please review the product's safety data sheet(s) (SDS).

KIT CONTENTS

Contents	Quantity
LyoDNA 2.0 Master Mix	1 Bulk Vial (each bulk vial contains enough Master Mix for ~65 20 μ L reactions)

TECHNICAL CHARACTERISTICS

Specification	Dimension
DNA-dependent DNA polymerase	Hotstart Taq polymerase (1 min. Activation @ 95°C)
Nucleotides	Proprietary mix of dNTPs, incl. dUTP
Buffer	Tris pH 8.8, Salts and enhancers for 5' nuclease assays
Mg ⁺⁺	8mM
Storage	15-30°C
Shelf life	36 months

Note: Contains Bovine Serum Albumin of USA origin. Certified BSA free.

RECONSTITUTION VOLUMES

Biomeme's LyoDNA 2.0 Master Mix is supplied as a dry reagent to be reconstituted in with a diluent containing 8-16% (by volume) molecular biology-grade glycerol.

Desired Master Mix Concentration	Diluent Volume to Add
10x	135 μ L
5x	270 μ L
2x	675 μ L

EXAMPLE PROTOCOLS

To use Biomeme's LyoDNA 2.0 Master Mix, gently tap the glass vial to settle the freeze-dried contents and unscrew the cap. Re-suspend the dry reagents and mix with diluent and target-specific primers and probe(s). Examples of experimental protocols are provided below.

Once all the components are combined, the reaction mix (e.g., 5x) is aliquoted into PCR reaction tubes (see Biomeme Go-Strips). Template nucleic acids are added, and the tubes are ready for thermocycling and analysis. Non-template controls may use water to substitute DNA.

5x Reaction Mix Guide	Reaction Volume	For 10 PCR Reactions
Template nucleic acid per reaction	10 μ L	-
Biomeme DNA Master Mix (5x concentration)	4 μ L	40 μ L
20x Primer & Probe Mix (target-specific)		
Forward primer	1 μ L	10 μ L
Reverse primer		
Dual-labelled hydrolysis probe/Molecular beacon		
Diluent (typically nuclease-free water)	5 μ L	50 μ L
Total Volume	20 μ L	100 μ L
Volume of reaction mix to aliquot into ea. reaction tube without template	10 μ L	10 μ L

STORAGE

Biomeme's LyoDNA 2.0 Master Mix should be stored in its original packaging at 15-30°C. If opened in a highly humid environment, the dry reagent resists humidity for up to one hour. Once reconstituted in water, it will remain stable for 24 hours if refrigerated at 2-8°C.

To store the Master Mix long-term, re-suspend it to 2x concentration with a diluent containing 8-16% (by volume) molecular biology-grade glycerol. Store it at -20°C.

DISCLAIMER

For Research Use Only. Not for use in human or veterinary diagnostics. The performance characteristics of this product have not been established.

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