PRODUCT SHEET

Biomeme

LyoDNA™ 2.0 + IPC MASTER MIX BULK VIAL

For Research Use Only. Not for diagnostic procedures.

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CONTENTS

LYODNA™ 2.0 + IPC MASTER MIX

Biomeme's **LyoDNA™ 2.0 + IPC Master Mix** is a lyophilized master mix containing our internal positive control (IPC) and core reaction components for fluorescent probe-based polymerase chain reaction (PCR) analysis of DNA targets. The Biomeme IPC is in the red channel (ATTO647N) at a 500 Genomic Equivalent (GE) concentration.

A proprietary blend of stabilizers and macromolecules, Biomeme's LyoDNA 2.0 + IPC 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 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

The following items are included:

Contents	Quantity
LyoDNA 2.0 + IPC Master Mix	1 Bulk Vial (each bulk vial contains enough Master Mix for ~65 20µL 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 + IPC 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	135µL
5x	270µL

2x	675µL

EXAMPLE PROTOCOLS

To use Biomeme's LyoDNA 2.0 + IPC 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	10µL	-
Biomeme DNA Master Mix (5x concentration)	4µL	40µL
20x Primer & Probe Mix (target-specific) Forward primer Reverse primer Dual-labelled hydrolysis probe/Molecular beacon	1µL	10µL
Diluent (typically nuclease-free water)	5µL	50µL
Total Volume	20µL	100µL
Volume of reaction mix to aliquot into ea. reaction tube without template	10µL	10µL

INTERPRETATION TABLE

Your Target	IPC	Result
+	+	Positive sample, target is present
+	-	Positive sample, target is present
-	+	Negative sample, target is not present
-	-	Inhibition may be present, dilute the extracted sample and retest

STORAGE

Biomeme's LyoDNA 2.0 + IPC 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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Biomeme, Inc.
401 North Broad St Suite 222
Philadelphia, PA 19108
support@biomeme.com

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