PRODUCT SHEET

Biomeme

MOSQUITO-BORNE PATHOGEN PANEL GO-STRIPS

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BIOMEME MOSQUITO-BORNE PATHOGEN PANEL GO-STRIPS

Biomeme **Mosquito-Borne Pathogen Panel Go-Strips** detects five major pathogens from mosquito samples including Yellow Fever Virus, Chikungunya Virus, Dengue Virus, Zika Virus, and Plasmodium. Each product order comes in our field-friendly 3-well Go-Strip™ format designed for use in Biomeme's mobile PCR thermocyclers.

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).*

CONTENTS

Item	Contents
Test Strip Pouch	1x pouch containing 10x small pouches. Each small pouch contains: - 1x 3-Well Test Strip - 1x 3-Cap Void Filling Cap Strip

TECHNICAL CHARACTERISTICS

Specifications	Dimensions
Tube Type	Low-profile 0.1mL PCR tubes
Reaction Volume	20 µL

TEST PANEL SPECIFICATIONS

Biomeme's Mosquito-Borne Pathogen Panel is a real-time PCR assay for detection of Yellow Fever Virus, Chikungunya Virus, Dengue Virus, Zika Virus, and Plasmodium. Target configuration is:

	Well 1	Well 2	Well 3
Green (FAM)	YFV (Yellow Fever Virus)	DENV (Dengue Virus)	Plas (Plasmodium)
Amber (TXRED)	CHKV (Chikungunya Virus)	ZIKV (Zika Virus)	-
Red (ATTO647N)	RPC (Exogeneous RNA Extraction and RT-PCR Process Control (MS2))	-	RNaP (Positive Control RNase P gene)

THERMOCYCLING PARAMETERS

	Temperature (°C)	Duration
Reverse Transcription	55	120 secs
Initial Denature	95	60 secs
Cycling Denature	95	1 sec
Annealing	60	20 secs
Extension	N/A	N/A
Number of Cycles: 40		**Total Reaction Volume:** 20 µL

PREPARE RNA PROCESS CONTROL

The Biomeme Mosquito-Borne Pathogen Panel includes an RNA Process Control (RPC) detection assay and lyophilized RPC Pellet (MS2 bacteriophage).

1. Remove and open the 2mL screw cap tube containing your RPC pellet.
2. Open the 5mL screw cap tube containing your RPC buffer.
3. Using a 1mL transfer pipette, pull 0.5 - 0.75mL of RPC buffer and add it to the RPC pellet in the 2mL tube.
4. Pipette up and down with the transfer pipette to mix.
5. Transfer the entire volume back into the 5mL RPC buffer tube, again pipetting up and down to mix.

   Note: *Check the box on the tube to indicate the RPC Buffer now contains the RPC material.*

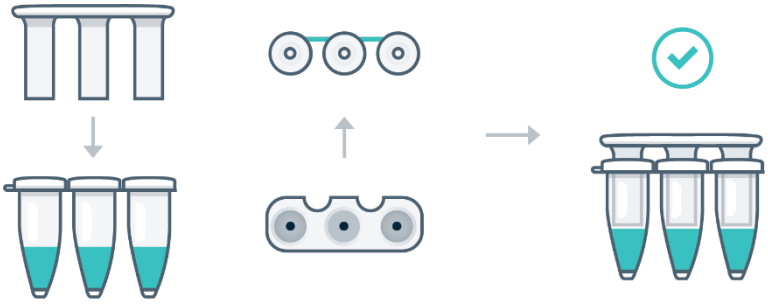
6. Your RPC is now ready to add to your upcoming sample extractions (this will equal ~400 pfu per 20 µL PCR reaction).

   The resuspended RPC has a maximum shelf life of 2 days when stored at room temperature. For longer term storage, aliquot out and freeze at -20°C for up to three months.

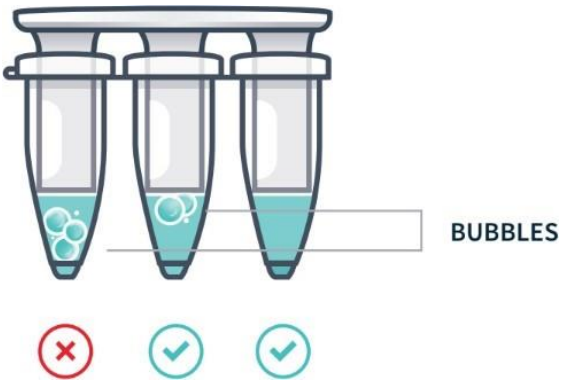
LOADING SAMPLE INTO GO-STRIP

Note: *Contents of the test strip may shift during transport. When starting to work with any test, make sure the cake of the lyophilized reagent rests at the bottom of the wells. Tap the bottom of the sealed test strip gently but firmly against a solid surface before removing the foil strip and adding nucleic acid.*

Transfer 20 µL purified sample into each well of the Go-Strip. Once all wells are filled, place the void filling cap into the strip. Align the Go-Strip and void filling cap so that the strip connections are visible through the cap cutouts.



Hold the strip firmly between your fingers and use one finger to secure the void filling cap inside of the strip. Then, with a gentle whipping motion of the wrist, slowly flick the tubes a few times to ensure bubbles are removed from the bottom of each tube.



Note: *Bubbles may remain at the top of a tube. This is acceptable. Bubbles at the bottom of the tube, however, are not acceptable.*

PLACING INTO BIOMEME THERMOCYCLER

Open the lid of the Biomeme thermocycler. Place your test strip, with the void filling cap inserted, into a 3-well slot. Don't worry if the void filling cap feels slightly loose. When the lid of the thermocycler is closed it will further secure the caps into place.

It's important to make sure your Go-Strip is oriented correctly when placing it into your thermocycler. Make sure the strip connections that are visible through the void filling cap cutouts are facing the back of your thermocycler. This will ensure sample 1 is always to the far left.

Navigate to the Biomeme App to begin your testing protocol. For further instructional information about your thermocycler, contact Biomeme.

Note: *Please transport your Franklin thermocycler in its carrying case. Additionally, moving your thermocycler while thermocycling could result in errors. We highly recommend not moving or opening the device while thermocycling to avoid losing your PCR run.*

STORAGE

All components of the Go-Strip should be stored in a dry place, at room temperature (15-30°C).

Once the large Go-Strip pouch has been opened, ensure that it is closed completely between use. Individual test strips should be used within a reasonable period of time after removal from individual foil pouch. Once opened, the dry reagent resists high humidity for up to one hour.

DISCLAIMER

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

Vector Surveillance assays are designed and optimized to detect DNA/RNA from insect or environmental samples. These tests are not designed or optimized, nor should they be used, to detect DNA/RNA from animal or human tissues.

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Biomeme, Inc.
401 North Broad St Suite 222
Philadelphia, PA 19108
support@biomeme.com

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