



YLM Ruminant

REF 204-0003

RUO For Research Use Only*

Product Overview

BioGX YLM Ruminant is a real time PCR multiplex qualitative *in vitro* test reagent intended to be used by laboratory personnel trained in the use of the **Cepheid Smartcycler II** real-time PCR system. The test is intended to aid in the detection of **ruminant DNA** by detecting the presence of DNA extracted from feed. Each tube of multiplex PCR mix is provided in BioGX proprietary Sample-Ready™ lyophilized format and contains all PCR primers, probes, enzyme, dNTPs, MgCl₂, buffers, and other components required for real-time PCR-based analysis of one sample.

References for Usage:

Development of a Multiplex Real-Time PCR Assay for the Detection of Ruminant DNA

Authors: Ekins, Jason; Peters, Sharla M.; Jones, Yolanda L.; Swaim, Heidi; Ha, Tai; La Neve, Fabio; Civera, Tiziana; Blackstone, George; Vickery, Michael C.L.; Marion, Bill; Myers, Michael J.; Yancy, Haile F. Source: Journal of Food Protection®, Volume 75, Number 6, June 2012, pp. 1107-1112(6)

Package Contents

Each pouch contains 12 tubes sufficient for 48 real time PCR reactions. Each tube contains sufficient Sample-Ready™ lyophilized mix for 4 x 25 µl reactions.

Setup Instructions

1. Each tube contains sufficient reagents for 4 x 25 µl reactions.
2. Add enough PCR grade water (or BioGX Rehydration Water #800-0035) to the lyophilized reagent such that each reaction will have a final total volume of 25 µl**.
3. Vortex briefly (~3 one-second pulses) and pop spin in centrifuge to settle tube contents.
4. Aliquot the appropriate volume of mastermix to each Cepheid Smartcycler 25 µl reaction tube**.
5. Add sample template to each reaction tube.
6. Close the SmartCycler tubes, centrifuge for 5 seconds, and proceed with PCR cycling.

**For example, for four reactions, if using 2 µl of template per reaction add 92 µl of PCR grade water to the lyophilized reagent, aliquot 23 µl of mastermix to each reaction tube and then add 2 µl of template to make a total of 25 µl.

Dye Set: FCTC

PCR Cycling Conditions

Stage 1: Hold 95 °C for 120 sec
Stage 2: Two Temperatures x 45 cycles of
95 °C for 10 sec O
56 °C for 60 sec O

Detection channels

Channel 1 Ruminant DNA **Channel 4** IAC

Analysis settings: Default except change Manual Threshold setting for each channel to 15 Units

Please call BioGX, or email support@biogx.com with any questions you may have regarding this product.

Storage Requirements and Recommendations



Product ships at ambient temperature, but BioGX recommends long-term storage at 2-8°C. Reagents have been tested to demonstrate optimal performance when stored properly and consumed by the Manufacturer Recommended Use By Date. The end user may opt to extend the useful life for Laboratory Use Only* reagents upon completing performance validations. BioGX's guarantee of reagent integrity does not extend beyond the Manufacturer Recommended Use By Date. Avoid exposing the reagents (lyophilized or rehydrated) to direct sunlight or long-term ambient lighting. Tightly reseal the pouch with unused reactions and immediately return to a refrigerator after opening. To mitigate reagent performance degradation from exposure to moisture, BioGX suggests using the entire contents of the opened pouch within 2 weeks; however, the user may choose to verify an extended working time (>2 weeks) by performance testing with positive controls and an examination of the sample preparation control target.

Interpreting the Internal Amplification Control Results:

Many different sample types contain PCR inhibitors. This test includes an internal amplification control (IAC) to ensure conditions are favorable for PCR, thus minimizing the reporting of false-negative results due to inhibition of the hot start polymerase. Specifically, the IAC is included to determine if PCR inhibition is present in samples that report a negative result. IAC primers and probe target a synthetic sequence that is included in the reaction mix.

When no PCR inhibition is present from the sample and in the absence of amplification of targets, the IAC should produce a signal with a Ct value between 32 and 37 cycles. If the sample targets are present at high concentrations, the IAC may or may not report amplification due to competition. This is normal.

If the IAC is delayed beyond a Ct value of 37 or does not report at all in the absence of target amplification, the samples may contain PCR inhibitors that are preventing target detection.

Limitations

This test is designed to test only for the presence of DNA from the target organisms specified in this particular assay. BioGX cannot and does not make any representation or warranty that the test is capable of detecting every organism in the target genus, serotype, or species in any sample source. The sensitivity and specificity of any PCR-based test depends upon many factors, including sample type, sample preparation, concentration of potential targets in a sample, user skill, etc. BioGX makes no claims regarding the sensitivity or specificity of this test, and the customer/user is solely responsible for determining the suitability of this test for testing purposes. THE CUSTOMER/USER ASSUMES ALL RISKS IN USING THIS TEST KIT AND BIOGX AND ITS DISTRIBUTORS OR REPRESENTATIVES SHALL HAVE NO LIABILITY TO CUSTOMER/USER OR TO ANY OTHER PERSON OR ENTITY FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, LOSS OF REVENUE OR PROFIT, LOST OR DAMAGED DATA OR OTHER COMMERCIAL OR ECONOMIC LOSS EVEN IF CAUSED BY THE NEGLIGENCE OF BIOGX OR ITS REPRESENTATIVES AND/OR IF BIOGX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND/OR IF THEY ARE FORESEEABLE.






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SYMBOLS

Symbol	Meaning	Symbol	Meaning
	Catalog number		Temperature limitation
	Research Use Only		Manufacturer
	Keep dry		



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