Technical Data Sheet

GENERAL INFORMATION

PRODUCT	MasterYeast® for DNA samples. Lyophilized.
Cat. No.	MT05R-LDMYeast
REACTIONS	500 reactions; each vial contains 50 reactions.
DESCRIPTION	MasterYeast® for DNA samples is suitable for DNA amplification techniques such as Conventional PCR and Real Time PCR, both in monoplex or multiplex. This product provides a flexibility tool that simplifies the PCR workflow and allows the amplification of DNA templates in a wide range of amplicon size (50 bp to 2 kb). MasterYeast® for DNA samples for 2X concentrated solution of Hot Start *Taq* DNA polymerase, dNTPs, and buffer containing $MgCl_2$. Only DNA template, primers and probe need to be added. This MasterYeast® for DNA samples can be used with a wide variety of thermocyclers and ISO 13485 compliant.

PRODUCTS PROVIDED

Component		Amount
5DR-LDMYeast	MasterYeast® for DNA samples. Lyophilized.	10 vials
RB-LDMYeast	MasterYeast® for DNA samples Reconstitution Buffer.	10 vials x 1.5 mL

DELIVERY CONDITIONS

SHIPPING CONDITIONS	This lyophilized product can be handled and stored at Room Temperature until expiry date.
STORAGE CONDITIONS	Once reconstituted, store it from -15 °C to – 25 °C for medium and long term. Storage at 4 °C is possible for short term. Avoid multiple freeze/thaw cycles by storing multiple aliquots.

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ADDITIONAL INFORMATION

RECONSTITUTION PROTOCOL

1. Spin the vial of the lyophilized enzyme (*5DR-LDMYeast*) at 12,000 x g in a microcentrifuge.
2. Add 500 µL of MasterYeast® for DNA samples Reconstitution Buffer (*RB-LDMYeast*) to obtain a 2X concentrated solution.
3. Gently pipette up and down to dissolve the solid powder.
4. Place on ice and aliquot into smaller volumes to avoid multiple freeze/thaw cycles.
5. Materials must be stored at 2-8 °C for short-term storage and at -20 °C for long-term storage (up to 6 months).

RECOMMENDED REACTION CONDITIONS

1. Gently vortex and briefly centrifuge all solutions.
2. Prepare the following mix on ice for each 20 µL reaction.

Component	Volume	Final concentration
MasterYeast® for DNA samples	10 µL	1X
10 µM Forward Primer	0.5-1 µL	0.25-0.5 µM
10 µM Reverse Primer	0.5-1 µL	0.25-0.5 µM
Probe	Variable	0.1-0.3 µM
DNA template	Variable	
Nuclease-free water	To 20 µL	

3. Gently mix the reaction and transfer tubes from ice to a PCR machine with a preheated lid to 95 °C. If using a thermocycler without a heated lid, overlay the reaction mixture with mineral oil to prevent evaporation.
4. Perform PCR using recommended thermal cycling conditions:

Step	Temperature	Time	Number of cycles
Initial denaturation	95 °C	2 min	1
Denaturation	95 °C	10 s	45
Annealing/Extension	60 °C	50 s	
Final Extension (if necessary)	60 °C	3 min	1

*For maximum yield and specificity, temperatures (annealing) and cycling times should be optimized for each new template target or primer pair.

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QUALITY CONTROL

ANALYTICAL SENSIVITY ASSAY

Analytical sensitivity of each MasterYeast® for DNA samples batch is evaluated performing standard curves in parallel with a reference batch. 10-fold serial dilution of control DNA is performed and 5 µL of each dilution are added to 15 µL reaction mixtures containing the MasterYeast® for DNA samples and specific primers and probe. Amplification conditions are those specify for *Taq* DNA Polymerase. Direct detection of PCR products is monitored by measuring the relative fluorescence units (RFU) produced by the result of probe hydrolysis after every cycle. And the resulting parallel standard curves are compared and assessed by analyzing the fluorescence, the minimum concentration of nucleic acids detection, C_t values and the sigmoid shape of the curves.

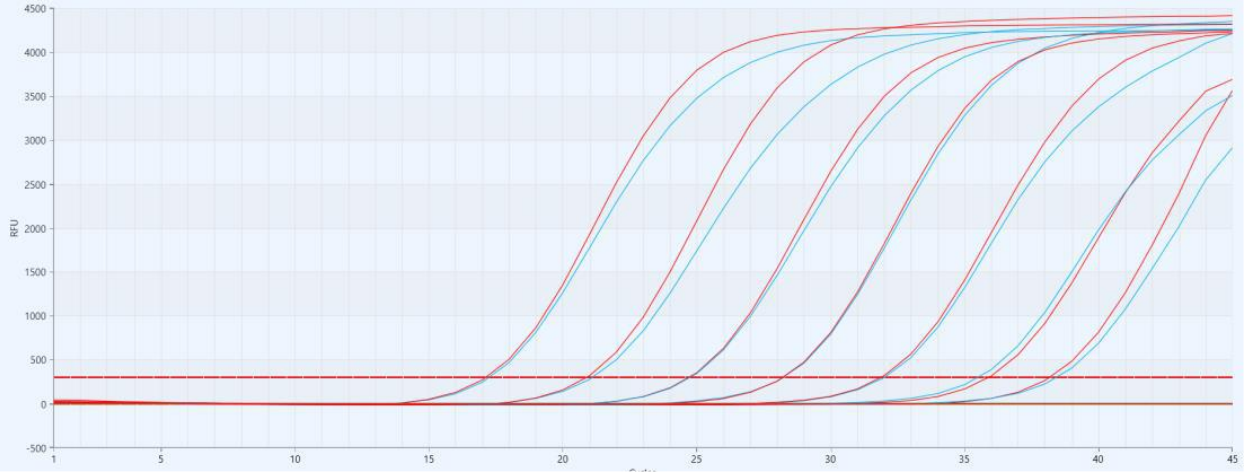

Image: comparation of parallel standard curves of a reference lot of MasterYeast® for DNA samples (in blue) and the evaluation lot of MasterYeast® for DNA samples (in red). Similar efficiency of amplification is observed.

TECHNICAL SUPPORT

If you have any questions, do not hesitate to contact us at
support@levprot.com

Consult the Safety Data Sheet for information regarding hazards and safe handling practises.

THIS PRODUCT IS INTENDED FOR RESEARCH USE ONLY.

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REVISION 01

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