Low DNA Taq HS 5 U/µL
Product Handling Guide

Shipping:	On Dry or Blue Ice
Catalog numbers:	MDX009
Batch No.:	See vial
Concentration:	5 U/µL

Store at –20 °C

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Storage and stability:
Low DNA Taq HS, 5 U/µL is shipped on dry or blue ice. On arrival store at -20 °C for optimum stability. Repeated freeze/thaw cycles should be avoided. Thawing during transportation does not affect the product performance. Solutions should be mixed/equilibrated after each thawing to avoid phasing.

Expiry:
When stored under the recommended conditions and handled correctly, full activity of the kit is retained until the expiry date on the outer box label.

Safety precautions:
Read and understand the SDS (Safety Data Sheets) before handling the reagents. Hardcopies of the SDSs will be provided with the first shipment, thereafter they will be available upon request.

Quality control:
Bioline operates under ISO 13485 Management System. The Low DNA Taq HS, 5 U/µL and its components are extensively tested for activity, processivity, efficiency, heat activation, sensitivity, absence of nuclease contamination and absence of nucleic acid contamination.

Notes:
This reagent has been manufactured under 13485 Quality Management System and is suitable for further manufacturing use as an IVD component.

Description

Low DNA Taq HS, 5 U/µL is a highly purified and chemically modified hot-start Taq DNA polymerase. The low DNA background and stringent hot-start properties of Low DNA Taq HS, 5 U/µL are ideal for PCR of low-copy bacterial targets and avoiding false-positive amplification, such as in water testing.

Kit components

Table 1

Component
Low DNA Taq HS, 5 U/µL
Low DNA Reaction Buffer, 10x
50 mM $MgCl_2$ Solution

Users Guidelines

The optimal conditions will vary from reaction to reaction and are dependent on the template/primers used.

Pre-incubate at 95 °C must be for 10 minutes. Subsequently, the reaction can be treated according to existing protocols.

If extension time exceeds 2.5 minutes, a maximum of 30 cycles should be used. Increasing the number of cycles may lead to smearing when run on an agarose gel.

The ideal $MgCl_2$ concentration in the reaction is likely to be 1.5 - 2.5 mM (final concentration), but some optimization may be necessary to achieve the best possible results.

PCR reaction setup

Prepare a master mix of Low DNA Taq HS, 5 U/µL and assay-specific primers (see recommended composition in Table 2).

Table 2

Reagent	Volume
Low DNA Taq HS, 5 U/µL	0.4 µL
Low DNA Reaction Buffer, 10x	2 µL
20x Primer (& Probe) Mix	1.0 µL
100 mM dNTP Mix	0.2 µL
50 mM $MgCl_2$ Solution	1.5 µL
Template	As required
Water (dH_2O)	≤ 20 µL

PCR amplification

The PCR conditions in Table 3 are suitable for amplicons of up to 1 kb.

Table 3

Step	Temperature	Time	Cycles
Initial denaturation	95 °C	10 min	1
Denaturation	95 °C	0.5-1 min	25-35
Annealing	User determined	10 s	
Extension	72 °C	1 min/kb	

Technical Support

For any technical enquiries, please contact our Technical Support team via email at: mbi.tech@meridianlifescience.com

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