

Glycerol-Free Taq DNA Polymerase Bac-Free

Product Handling Guide

Shipping:	On Blue Ice
Catalog number:	MDX252
Batch No.:	See vial
Concentration:	50 U/ μ L

Store at -20°C



Storage and stability:

Glycerol-Free Taq DNA Polymerase Bac-Free is shipped on dry/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 SDS will be provided with the first shipment, thereafter they will be available upon request.

Quality control:

Meridian Bioscience operates under ISO 13485 Quality Management System. Glycerol-Free Taq DNA Polymerase Bac-Free and its components are extensively tested for activity, and sensitivity.

Notes:

For research and further manufacturing use only.

Description

Glycerol-Free Taq DNA Polymerase Bac-Free is a highly thermostable DNA polymerase derived from the thermophilic bacterium *Thermus aquaticus*, produced using a recombinant eukaryotic expression system. This unique production method ensures the enzyme is completely free of *E. coli* DNA contamination, making it the ideal choice for sensitive PCR applications where even trace levels of bacterial DNA could compromise assay accuracy. In addition, Polymerase Bac-Free is fully compatible with the production of lyophilized or air-dried qPCR and RT-qPCR reagents that are stable at ambient temperatures. For optimal performance, the enzyme should be combined with a suitable reaction buffer, primers, and probes prior to lyophilization or air-drying.

Kit Components

Table 1.

Reagent
Glycerol-Free Taq DNA Polymerase Bac-Free, 50 U/ μ L
Taq Antibody, 10 mg/mL
Enzyme Dilution Buffer, 10x

To optimize the final concentration of Glycerol-Free Taq DNA Polymerase Bac-Free, titrate in the range 0.04-0.4 U/ μ L per reaction.

Addition of non-ionic detergents, or a suitable alternative, to the reaction mix can prevent adsorption and stabilize Glycerol-Free Taq DNA Polymerase Bac-Free during PCR reaction. This is not required when preparing a working solution of 5 U/ μ L Glycerol-Free Taq HS because the Enzyme Dilution Buffer contains sufficient detergent.

User Guidelines

Thawing during transportation does not affect the product performance. Prior to use or storing at -20°C , the thawed Glycerol-Free Taq DNA Polymerase Bac-Free must be thoroughly mixed by 10 inversions.

For optimal hot-start activity, Glycerol-Free Taq DNA Polymerase Bac-Free, 50 U/ μ L and Taq Antibody, 10 mg/mL must be used in a 2:1 volume ratio.

These reagents can either be added directly to a PCR master mix or can be prepared as a premixed working solution of 5 U/ μ L Glycerol-Free Taq HS as described in Table 2.

Table 2.

Reagent	Ratio	Volume
Glycerol-Free Taq DNA Polymerase Bac-Free, 50 U/ μ L	0.1	2 μ L
Taq Antibody, 10 mg/mL	0.05	1 μ L
Enzyme Dilution Buffer, 10x	0.1	2 μ L
Water (dH ₂ O)	0.75	15 μ L

Technical Support

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