

# GFDx Taq DNA Polymerase, 50 U/μL

Shipping: On Dry/Blue Ice Catalog numbers

BIO-11070.01 : 25,000 Units

Batch No.: See vial

Concentration: 50 U/μL

Store at -20 °C



## Expiry:

When stored under the recommended conditions and handled correctly, full activity of the product is retained until the expiry date on the outer box label. Thaw, mix, and briefly centrifuge each component before use.

## Safety precautions:

Read and understand the SDS (Safety Data Sheet) before handling the reagents.

## Unit definition:

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTP into acid-insoluble form in 30 minutes at 72 °C.

## Quality control specifications:

GFDx Taq DNA Polymerase, 50 U/μL is extensively tested for activity, purity, and absence of glycerol, nucleases and nucleic acids prior to release.

## Notes:

For research or further manufacturing use only.

## Description

GFDx Taq DNA Polymerase, 50 U/μL comprises lyophilization-compatible GFDx Taq DNA Polymerase, GFDx Taq Antibody and GFDx Dilution Buffer. GFDx Taq DNA Polymerase and GFDx Taq Antibody are glycerol-free reagents for specific application in lyophilized PCR systems.

GFDx Taq DNA Polymerase, in combination with GFDx Taq Antibody, is suitable for difficult, multiplex molecular tests that require fast amplification, whilst maintaining both high specificity and sensitivity.

## Kit Components

Table 1. GFDx Taq DNA Polymerase, 50 U/μL

Reagent	25,000 Units
GFDx Taq DNA Polymerase (50 U/μL)	1 x 500 μL
GFDx Taq Antibody (10 mg/mL)	1 x 250 μL
GFDx Dilution Buffer (10x)	2 x 2 mL

Use 0.1 U/μL GFDx Taq DNA Polymerase per reaction or, to optimize, titrate in the range 0.4-0.05 U/μL GFDx Taq DNA Polymerase.

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

## Storage and Stability

GFDx Taq DNA Polymerase, 50 U/μL (BIO-11070.01) is shipped on blue ice. All kit components should be stored at -20 °C upon receipt.

Thawing during transportation does not affect the product performance. Prior to use or storing at -20 °C, the thawed GFDx Taq DNA Polymerase, 50 U/μL must be thoroughly mixed by 10 inversions.

## User Guidelines

GFDx Taq DNA Polymerase hot-start functionality can be generated by the addition of GFDx Taq Antibody to reduce non-specific DNA polymerase activity during PCR setup. For optimal hot-start activity, GFDx Taq DNA Polymerase and GFDx Taq Antibody must be used in a 2:1 volume ratio.

Depending upon end user preferences, these reagents can either be added directly to a PCR master mix or can be prepared as a premixed working solution as described in Table 2.

Table 2. 20 μL working solution of 5 U/μL GFDx Taq DNA Polymerase and GFDx Taq Antibody

Reagent	Ratio	Volume
GFDx Taq DNA Polymerase (50 U/μL)	0.1	2 μL
GFDx Taq Antibody (10 mg/mL)	0.05	1 μL
GFDx Dilution Buffer (10x)	0.1	2 μL
Water (dH <sub>2</sub> O)	0.75	15 μL

Bioline Reagents Ltd  
UNITED KINGDOM

Tel: +44 (0)20 8830 5300  
Fax: +44 (0)20 8452 2822

Meridian Life Science Inc.  
USA

Tel: +1 901 382 8716  
Fax: +1 901 382 0027

Bioline GmbH  
GERMANY

Tel: +49 (0)3371 60222 00  
Fax: +49(0)3371 60222 01

Bioline (Aust) Pty. Ltd  
AUSTRALIA

Tel: +61 (0)2 9209 4180  
Fax: +61 (0)2 9209 4763