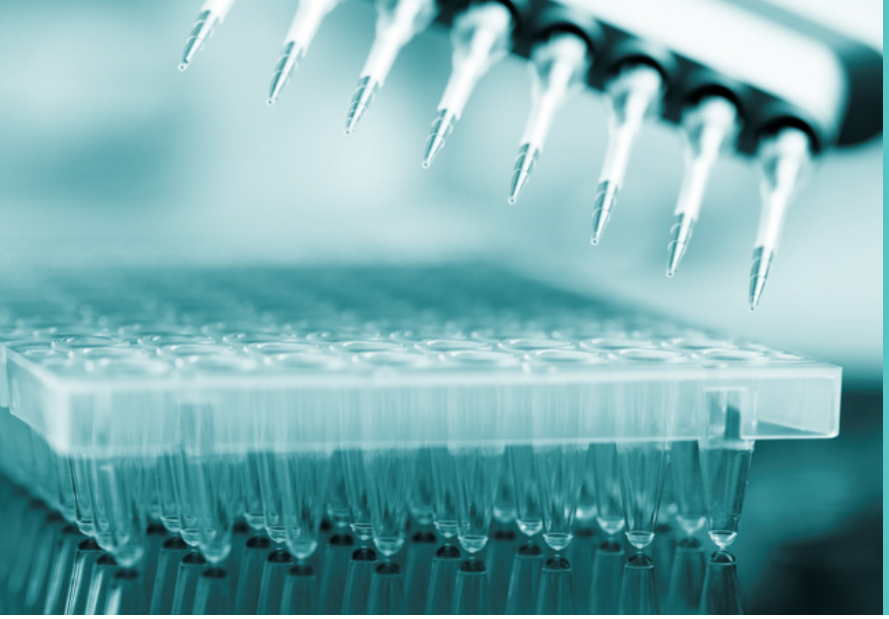

GFDx Hot-Start Taq DNA Polymerase, 50 U/µL

High concentration, lyophilization-compatible PCR polymerase for preparation of dried amplification mixes

- **Glycerol-free:** convenient for lyophilization
- **High concentration:** ideal for assay development
- **Sensitive:** retains the same reproducible performance as with conventional formats
- **Convenient:** confers improved stability at ambient temperature
- **Flexible:** separate Taq, antibody and enzyme dilution buffer, for greater flexibility

GFDx Hot-Start DNA Polymerase has been optimized to deliver an excellent, stable performance without glycerol (Fig. 1), meaning it is also compatible with lyophilization, as a stand-alone enzyme or when combined with additional assay components in a reaction mix.

GFDx Hot-Start DNA Polymerase is supplied as a separate 50 U/µL, high-performance glycerol-free Taq, glycerol-free Taq antibody and glycerol-free enzyme dilution buffer. Separating these components allows greater flexibility in assay development. Formulating the components at high concentrations means GFDx Taq is especially suited for high throughput applications.

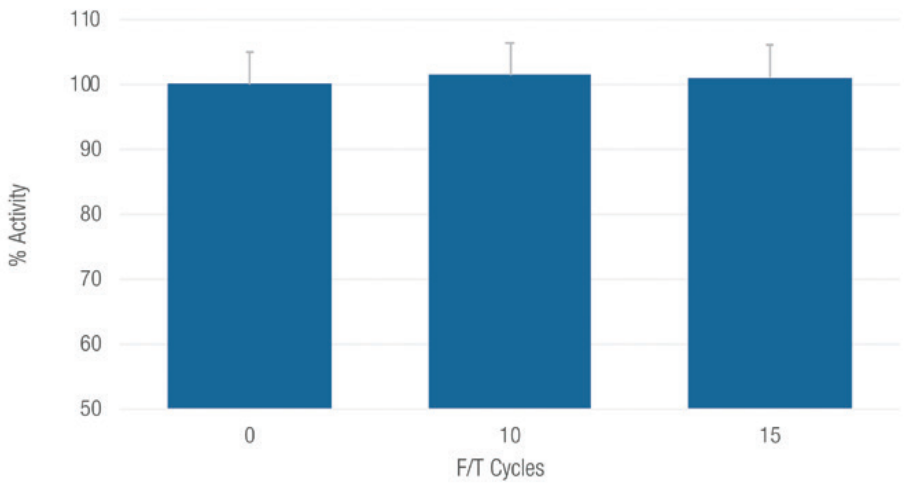

Fig. 1. Stability
Glycerol is a cryoprotectant and is normally part of the storage buffer, where it serves to protect Taq polymerase during freezing conditions. To test the resistance of glycerol free GFDx Taq DNA Polymerase to freezing and thawing, a freeze-thaw test was performed (10 and 15 cycles of freeze/thawing) and compared to fresh product (0 cycles of freeze/thawing). The results illustrate that GFDx Taq DNA Polymerase offers the same protection to freeze/thawing as a polymerase that contains glycerol.

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GFDx Hot-Start DNA Polymerase delivers the same accurate, excellent results under fast qPCR conditions from the reconstituted mix as it does from the wet mix (Fig. 2).

GFDx Hot-Start DNA Polymerase gives the same robust, high-yield amplification following lyophilization, as MyTaq HS DNA Polymerase (Fig. 3).

An additional benefit of lyophilization is that larger volumes of sample can be added, thereby increasing the potential sensitivity of the assay even further.

APPLICATIONS

GFDx Taq DNA polymerase has been tested with a range of template and primers and is perfectly suited to the following applications:

- Diagnostic test development
- Pathogen detection
- Drug therapy efficacy
- DNA target detection
- Gene expression analysis

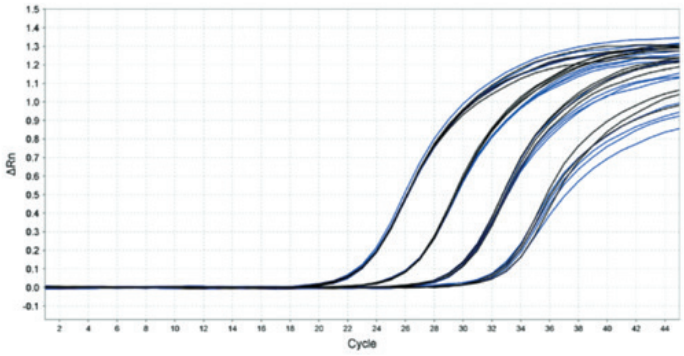

Fig. 2. Efficient and reproducible qPCR assays
GFDx Taq DNA Polymerase was used to set up two sets of qPCR assays, one assay was then lyophilized (blue) and the other left as a wet mix (black). A 10-fold serial dilution of template DNA was used as a template for the qPCR reactions. The results illustrate equally efficient and sensitive amplification was achieved with both wet and lyophilized GFDx Taq DNA polymerases.

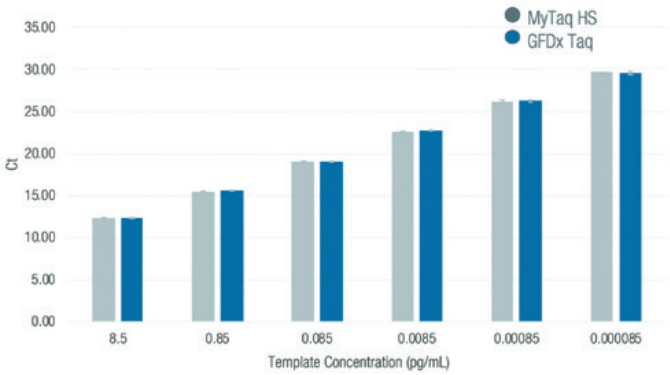

Fig. 3. High sensitivity
GFDx Taq DNA Polymerase and MyTaq DNA Polymerase were used to amplify a fragment of DNA from varying amounts of template DNA in triplicate assays. GFDx Taq DNA Polymerase offers the same sensitivity, specificity and yields, comparable to those of the standard formulation of MyTaq DNA Polymerase.

Ordering Information

Product	Pack Size	Cat. #
GFDx Hot-Start Taq DNA Polymerase	25,000 Units	BIO-11070.01

Contact information:

Global
E: info@meridianlifescience.com
Toll free: +1 800 327 6299

Australia
E: info.au@meridianlifescience.com
Tel: +61 (0)2 9209 4180

Connect with us:

bioline.com/gfdx

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