Product Specifications

The Thermo Scientific PCR reagent portfolio now includes an advanced enzyme solution for High Fidelity PCR applications - Verbatim High Fidelity DNA Polymerase.

Thermo Scientific Verbatim High Fidelity DNA Polymerase Kits

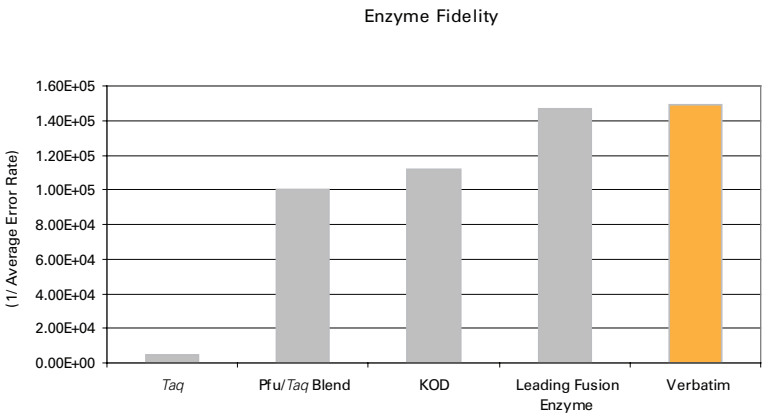


Fig. 1: Verbatim High Fidelity DNA Polymerase exhibits superior fidelity compared to Taq, standard proofreaders, and advanced fusion proofreading enzymes. Average error rates of five PCR enzymes, including Verbatim High Fidelity DNA Polymerase (data generated following a modified protocol based on the rpsL method described by Fuji et al, 1999).

Advanced High Fidelity PCR

Thermo Scientific Verbatim High Fidelity DNA Polymerase is a unique enzyme that delivers industry leading fidelity, while also exhibiting exceptional processivity. This powerful enzyme, paired with our optimized buffer systems, delivers unsurpassed accuracy, yield and speed, raising the bar for performance in high fidelity PCR applications.

Industry Leading Fidelity

Verbatim features superior proofreading capabilities to amplify with exceptional accuracy. This industry leading fidelity results in the most accurate PCR products, to provide a strong foundation for downstream applications.

Increased Speed & Yield

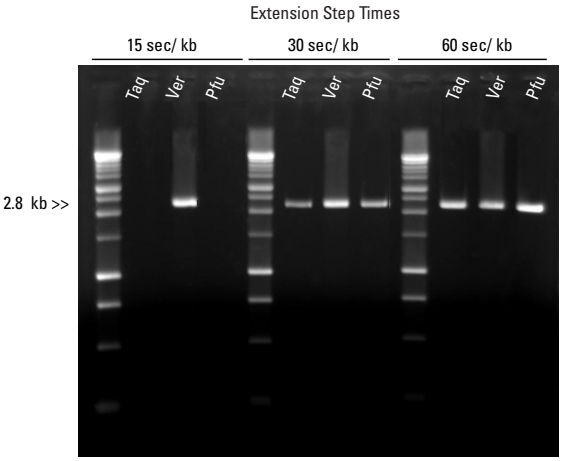
Compared to both Taq and other standard proofreading enzymes like Pfu, Verbatim has an increased affinity for DNA templates resulting in enhanced processivity and significantly improved product yield. This enhanced processivity can also result in shorter protocol times for faster PCR results.

Broad Template Flexibility

Verbatim is supplied with two optimized buffering systems for success with both standard and challenging templates. All kits include a high fidelity buffer for all standard templates and a GC buffer for GC-rich and other complex targets.

Product Specifications:

Fig.2 Verbatim's high affinity to DNA templates increases processivity to deliver improved yield over standard *Taq* and Pfu. PCR amplification of pKF3 plasmid (2.3 kb) using either standard *Taq*, a Pfu enzyme, or Verbatim with extension times of either 15 sec, 30 sec or 60 sec, during a 40 cycle protocol. All products are run with a 1 kb ladder (AB-0387).



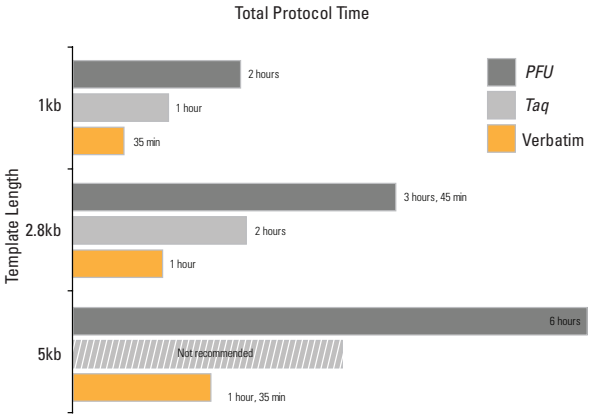


Fig. 3: Shortened extension times allow for up to 75% reduction in overall protocol times. Calculated PCR amplification protocol times using Pfu, Taq or Verbatim with 1, 2.8, and 5 kb templates. Protocol times are based on suppliers recommended 3-step reaction protocol repeated over 30 cycles.

Choose your preferred format: Verbatim is available in an enzyme kit format or a complete PCR kit format. The complete PCR kit format includes all components needed to perform PCR, including an HPLC-purified dNTP mix.

ENZYME KIT

DNA Polymerase / 5X High Fidelity Buffer / 5X GC Buffer / $MgCl_2$

COMPLETE PCR KIT

DNA Polymerase / 5X High Fidelity Buffer / 5X GC Buffer / $MgCl_2$ / dNTPs

Notes

$MgCl_2$ Concentrations:
Both the High Fidelity and GC buffers are pre-mixed with $MgCl_2$ at 2.0 mM concentration in the final reaction. The separate $MgCl_2$ vial can be used for further $MgCl_2$ optimization.

High Fidelity Buffer and GC Buffer:
Use High Fidelity Buffer for all standard templates. Use GC Buffer only for GC rich or other complex templates.

T/A Cloning:
Due to its proof-reading activity, Verbatim removes the 3'-A overhangs necessary for T/A cloning applications. Protocols are readily available for the addition of 3'-A overhangs post-amplification. Please contact our technical support team for more information.

Detailed Product Information
For more information or to download the product manual, please visit www.thermo.com/verbatim

Ordering Information:

Cat. No.	Product Description	Quantity
AB-1920/A	Verbatim High Fidelity DNA Polymerase, Enzyme Kit (100 U)	200 x 25 µl rxns
AB-1920/B	Verbatim High Fidelity DNA Polymerase, Enzyme Kit (500 U)	1000 x 25 µl rxns
AB-1920/A/N	Verbatim High Fidelity DNA Polymerase, Complete PCR Kit (100 U)	200 x 25 µl rxns
AB-1920/B/N	Verbatim High Fidelity DNA Polymerase, Complete PCR Kit (500 U)	1000 x 25 µl rxns

For more information or to download the product manual, please visit: www.thermo.com/verbatim

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