

ZymoTaq™ DNA Polymerase

Ideal for the Amplification of Bisulfite-Treated DNA for Methylation Detection

- Reduces non-specific PCR product formation from “difficult” templates (e.g., bisulfite-treated DNA).
- Hot start DNA polymerase for robust product formation.
- Compatible with real-time, quantitative PCR and suitable for TA-cloning.

Unit Definition

One unit (U) enzyme is defined as the amount of enzyme required for the incorporation of 10 nM dNTPs into an acid-insoluble form in 30 minutes at 72°C.

Enzyme Concentration

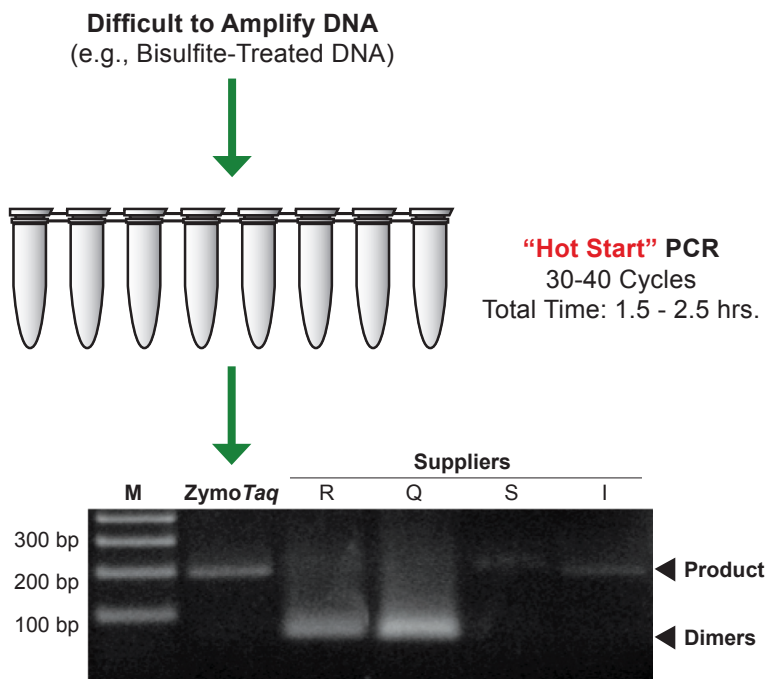
Reaction conditions at 1X (50 µl total volume) will contain 2 U of ZymoTaq™ DNA polymerase. As the ZymoTaq™ PreMix (2X), the enzyme is at 4 U/50 µl.

Storage

Store at -20°C for up to 12 months. Avoid repeated freeze/thawing of reagents. Prolonged storage is at -80°C.

ZymoTaq™ DNA Polymerase is a “hot start”, thermal-stable DNA polymerase that reduces primer dimer and non-specific product formation that can occur when performing PCR with “difficult” templates. This unique product is specifically designed for the amplification of bisulfite-treated DNA for methylation detection, real-time and quantitative PCR that are SYBR Green and probe based. The product generates specific amplicons with little or no by-product formation. The polymerase has 3'-terminal transferase activity. The addition of “A” overhangs to amplified DNA makes it ideal for use in TA-cloning.

ZymoTaq™ DNA Polymerase is simple and easy to use... just heat at 95°C for 10 minutes to activate the polymerase. It is available either as a single buffer premix or as a polymerase system with components provided separately.



Efficient PCR amplification of bisulfite treated DNA for methylation detection. The figure shows 200 bp product formation from bisulfite-treated DNA using ZymoTaq™ PreMix versus the polymerase systems from Suppliers R, Q, S, and I, respectively. In each case, equal amounts of bisulfite-treated DNA (EZ DNA Methylation-Direct™ Kit from Zymo Research) were used for each PCR, and the products separated in a 2.0% (w/v) agarose/TAE/EtBr gel. Also shown is the low occurrence of both primer dimerization and non-specific product formation.

Ordering Information

Product	Description	Cat. No.	Size
ZymoTaq™ PreMix	Single tube, 2X premix of hot start polymerase for easy PCR setup.	E2003	50 rxns
		E2004	200 rxns
ZymoTaq™ DNA Polymerase	Set of hot start polymerase, 2X reaction buffer, and dNTPs (each provided individually).	E2001	50 rxns
		E2002	200 rxns



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Note - ™ Trademarks of Zymo Research Corporation. This product is for research use only and should only be used by trained professionals. Wear protective gloves and eye protection. Follow the safety guidelines and rules enacted by your research institution or facility. The Polymerase Chain Reaction (PCR) process is covered by U.S. Patent: #4,683,195; 4,683,202 assigned to Hoffmann-La Roche. Patents pending in other countries. No license under these patents to use the PCR process is conveyed expressly or by implication to the purchaser by the purchase of Zymo Research's products. Further information on purchasing licenses to practice the PCR process can be obtained from the director of Licensing at Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404 or at Roche Molecular Systems, Inc., 1145 Atlantic Avenue, Alameda, California 94501.