

Product Information

Cheetah™ Hot-Start Taq DNA Polymerase (Cheetah™ Taq) (Low DNA)

Catalog Number: 29050

Packaging Size: 500 units (100 uL at 5 units/uL)

Additional materials supplied with: one vial of 10X Cheetah™ Taq Buffer (without Mg²⁺) (1.5 mL) and one vial of 25 mM MgCl₂ (1.5 mL)

Storage and Handling

Cheetah™ Taq is supplied in a buffer containing Tris-HCl (pH 9.0), DTT, EDTA, KCl and glycerol. The product is shipped on blue ice and should be stored immediately at -20°C upon arrival. The 10X Cheetah™ buffer and MgCl₂ solution should be stored at 4 or -20 °C. If stored according to the recommended condition, the enzyme and the accompanying components should be stable for at least one year from the time of arrival.

Product Description

Cheetah™ Hot-Start Taq DNA Polymerase is a chemically modified Taq polymerase designed for reducing nonspecific DNA amplification due to primer-dimer formation in PCR. The activation time for Cheetah™ Taq is only about 2 minutes at 95 °C, which is 5 to 10 times faster than that for AmpliTaq Gold® or HotStar® Taq. Cheetah™ Taq is also superior to antibody-based hot-start Taq polymerases (such as those from Invitrogen, BioRad, Promega, and TakaRa) because it is free of animal DNA and its activity is completely suppressed prior to activation. Furthermore, unlike AmpliTaq Gold®, activation of Cheetah™ Taq is relatively insensitive to pH, permitting use of reaction buffers formulated between pH 6 and pH 10.

Recommended Protocol:

- 1 Set up PCR reaction using the following final concentrations of reaction components:
 - 1x Cheetah™ buffer
 - 1.5-3.5 mM MgCl₂
 - 0.1-1 uM each of primers
 - 0.2 mM each of dNTPs
 - 0.02-0.1 unit/uL Cheetah™ Taq
- 2 Two-temperature cycling protocol:
 - 95 °C – 2 minutes
 - 25 - 35 cycles of
 - 95 °C – 1-15 seconds
 - 60 °C – 1 minute per Kb
- 3 Three-temperature cycling protocol:
 - 95 °C – 2 minutes
 - 25 - 35 cycles of
 - 95 °C – 1-15 seconds
 - 50 °C – 5 -30 seconds
 - 72 °C – 1 minute per Kb

Biotium products are high-quality reagents and materials intended for research purposes only. Some products are potentially hazardous chemicals - please read the Material Safety Data Sheet for additional information regarding handling potentially hazardous chemicals. Several of Biotium products and product applications are covered by U.S. and international patents and pending patents. EvaGreen® dye and applications are covered under patent nos. 7,601,498 and 7,776,567. Our products are not available for resale or other commercial uses without a specific agreement from Biotium, Inc. We welcome inquiries about licensing the use of our dyes, trademarks or technologies. Please submit inquiries by e-mail to btinfo@biotium.com. Names containing the designation TM are trademarks of Biotium, Inc.

NOTICE TO PURCHASER: LIMITED LICENSE

Use of this product is covered by one or more of the following US patents and corresponding patent claims outside the US: 6,127,155, 5,677,152 (claims 1 to 23 only), 5,773,258 (claims 1 and 6 only), and claims outside the US corresponding to expired US Patent No. 5,079,352. The purchase of this product includes a limited, non-transferable immunity from suit under the foregoing patent claims for using only this amount of product for the purchaser's own internal research. No right under any other patent claim and no right to perform commercial services of any kind, including without limitation reporting the results of purchaser's activities for a fee or other commercial consideration, is conveyed expressly, by implication, or by estoppel. This product is for research use only. Diagnostic uses under Roche patents require a separate license from Roche. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

Purchase of this product includes an immunity from suit under patents specified in the product insert to use only the amount purchased for the purchaser's own internal research. No other patent rights are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained by contacting the Director of Licensing, Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404, USA.

Practicing real-time PCR may require additional licensing from Roche or Applied Biosystems, Inc.