
Amersham Hot Start Mix Ready-To-Go



Preformulated and predispensed, freeze-dried PCR reagents mix including high-quality PuReTaq DNA Polymerase and a hot start activator protein, for increased specificity and reproducibility of PCR amplifications.

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- Recombinant hot start activator protein sequesters primers prior to PCR, effectively reducing nonspecific priming and primer-dimer formation.
- Avoids the risk of contamination from a mammalian source associated with hot start antibodies.
- Quick hot start activation preserves sample integrity by avoiding extensive precycling heat treatment.
- Streamlines the workflow and yields more reproducible results.
- Long-term ambient-temperature stable: no freezer space required; less energy consumption for shipping and storage
- Validated for real-time PCR.

Description

Hot Start Mix RTG is a premixed, predispensed, ambient temperature- stable formulation that can effectively reduce nonspecific priming and primer-dimer formation during PCR. The system is based on a novel hot start method that uses a hot start activator protein to sequester primers prior to PCR, thereby making them unavailable for nonspecific priming during the reaction preparation. This method requires only a quick 2 min initial PCR activation step. In contrast, other commercially available hot start PCR kits that are based on chemical inactivation require prolonged incubation at high temperatures, which may damage the DNA template by heat-induced depurination. The net result from using Hot Start Mix RTG is a more robust and reliable amplification of the target amplicons with increased yield when compared with conventional hot start master mix products. Furthermore, the mix does not contain *Taq* antibody and this eliminates the risk of mammalian-source contamination.

This Ready-To-Go format provides reproducible and reliable performance for demanding PCR applications in which high specificity and high sensitivity are essential to success.

Product Specifications ^

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Parameter

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Order Information

Larger custom pack sizes are available on request, please inquire.

Application

Standard PCR

Physical State

Solid

Storage conditions

Ambient temperature in pouch with desiccant

Kit contents

Room-temperature stable beads containing 1.75 units of recombinant PuReTaq DNA polymerase, dATP, dCTP, dGTP, dTTP, stabilizers, BSA and reaction buffer. When a bead is reconstituted to a 25 μ l final volume, the concentration of each dNTP is 200 μ M and the concentration of $MgCl_2$ is 1.5 mM.

Functional Testing

Each batch of Hot Start Mix RTG is functionally tested:

- To demonstrate that polymerase activity is blocked by 90% or greater when incubated for 4 h at 25°C in the presence of DNA polymerase, dNTPs, and polymerase substrate compared to reactions in which the Hot Start Activator protein had been inactivated by heat treatment.
- To ensure that Hot Start Mix RTG is free of contaminating prokaryotic and eukaryotic genomic DNA. Real time PCR assays were performed and the levels of all these potential contaminants were found to be negligible.

Parameter**Amersham Hot Start Mix Ready-To-Go**

Color

White

Licensing

For licensing information, see the Licensing Statements page in the About Us section.

Tube size

0.5 ml

Pack size

100 reactions