

New!

# Phusion<sup>®</sup> Hot Start II High-Fidelity DNA Polymerase

## Proofreading DNA polymerase with superior features

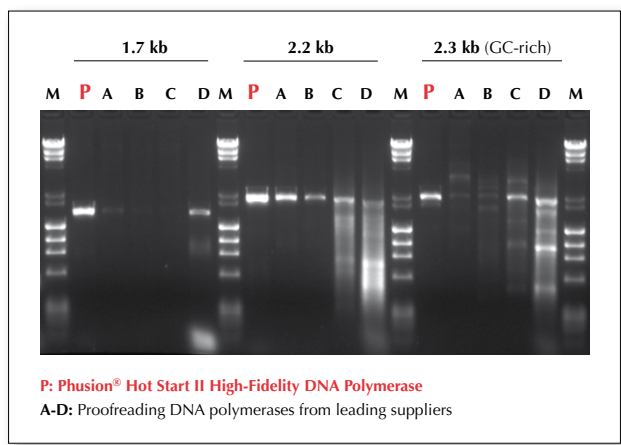
Finnzymes' Phusion<sup>®</sup> Hot Start High-Fidelity DNA Polymerase is the most accurate hot start DNA polymerase in the market. It has now been upgraded to allow the use of even wider range of primers, including those with low melting temperatures. The new Phusion<sup>®</sup> Hot Start II DNA Polymerase is ideal for PCR applications from routine PCR to highly demanding applications such as cloning and high-throughput PCR. Like all Phusion DNA Polymerases, it incorporates a unique dsDNA-binding domain making this *Pyrococcus*-like proofreading DNA polymerase extremely robust, rapid, and accurate.

## Advantages

- No annealing temperature limitations
- Allows reaction setup at room temperature
- Zero-time reactivation due to unique hot start technology
- Fast PCR enzyme with extreme fidelity (over 6 times more accurate than *Pfu*)
- High product yields with low enzyme amounts gives an excellent cost/reaction ratio
- Robust enzyme with high tolerance against PCR inhibitors requires minimal optimization

## Extreme specificity with improved performance

At room temperature, Phusion Hot Start II DNA Polymerase is inactivated by a reversibly binding Affibody<sup>®</sup> molecule, making the enzyme extremely specific. Hot start modification also prevents primer degradation during reaction setup. The unique hot start technology allows zero-time reactivation of the enzyme at standard cycling temperatures. The new Affibody molecule utilized in the Phusion Hot Start II DNA Polymerase sets no temperature limitations in the annealing step of the PCR protocol. This improvement allows the use of a very wide range of primers, including those with low melting temperatures.



**Phusion Hot Start II DNA Polymerase provides extreme specificity and abundant yields.** Five proofreading DNA polymerases from major suppliers were used to amplify 1.7-2.3 kb amplicons from human genomic DNA. All amplifications were performed in accordance with the manufacturers' instructions. Phusion Hot Start II DNA Polymerase provided high yields of specific products whereas all other enzymes delivered zero or low yields, with some also amplifying non-specific products.

## Improve PCR performance with Finnzymes' instruments and vessels



Unique Piko<sup>®</sup> Thermal Cyclers and ultra thin wall UTW<sup>®</sup> tubes and plates provide additional speed and reliability for PCR.

## Ordering information

Phusion <sup>®</sup> Hot Start II High-Fidelity DNA Polymerase	
F-549S	100 U (2 U/μl)
F-549L	500 U (2 U/μl)

Phusion<sup>®</sup> is a trademark or registered trademark of Finnzymes Oy. Piko<sup>®</sup> and UTW<sup>®</sup> are trademarks or registered trademarks of Finnzymes Oy or its affiliates. Notice to Purchaser: Limited license (proofreading DNA polymerases). Phusion DNA Polymerases are sold under US and foreign patents 5,500,363 and 5,352,778 owned by New England Biolabs, Inc. Quality system of Finnzymes Oy is certified according to standard SFS-EN ISO9001:2008.