

PhusionTM Flash

PCR Master Mix

NEW!
PCR in a Flash



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Phusion™ Flash

High-Fidelity PCR Master Mix

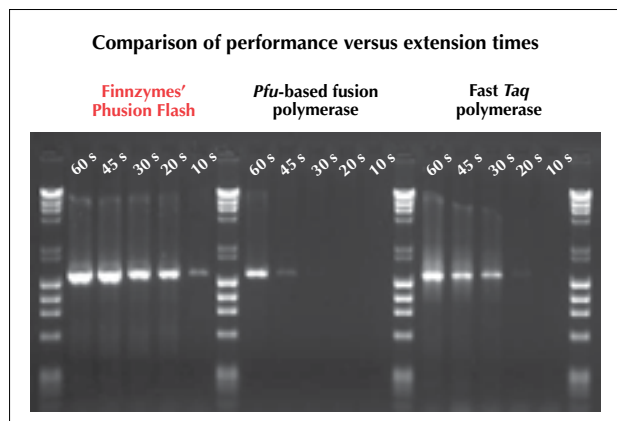
Accelerated Phusion™ DNA Polymerase

Phusion™ Flash High-Fidelity PCR Master Mix is a novel reagent developed especially for fast PCR. It utilizes modified Phusion Hot Start High-Fidelity DNA Polymerase, which ensures the accuracy of the DNA amplification. With this reagent, both low and high complexity DNA can be amplified with a PCR protocol using an extension step of only 15 seconds or less per kilobase. The robustness of Phusion Flash PCR Master Mix minimizes the need for optimization.

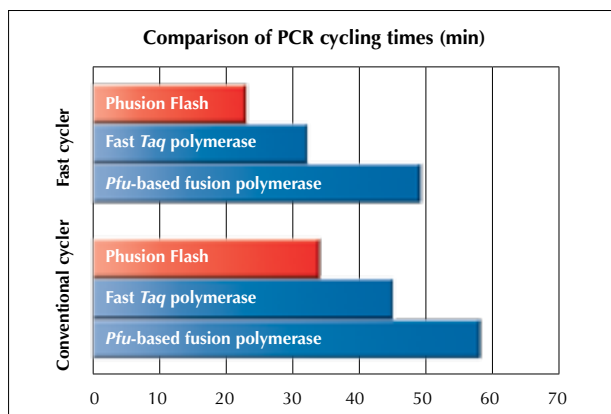
Phusion Flash PCR Master Mix was developed to save valuable laboratory time. First, use of Master Mix reduces required pipetting steps at reaction setup. Second, the unique composition of the Phusion Flash PCR Master Mix enables the use of extremely short cycling protocols in all PCR instruments.

Advantages

- **Extreme speed** - extension times of 15 s/kb or less
- **Accuracy** - proofreading DNA polymerase with a fidelity of 25 x *Taq*
- **Yield** - high yields in reduced time



A 1.5 kb fragment from the human cathepsin K gene was amplified with three different DNA polymerases according to the suppliers' recommendations. Different extension times were used in a two-step protocol. For Phusion Flash PCR Master Mix, a 10-second extension time was enough to amplify a 1.5 kb fragment (left). In contrast, a *Pyrococcus furiosus*-based fusion DNA polymerase from a major supplier required a significantly longer extension time (middle). Phusion Flash PCR Master Mix was also faster than a *Thermus aquaticus* DNA polymerase developed for fast PCR (right). Due to the high processivity of the DNA polymerase in Phusion Flash PCR Master Mix, the yields were also higher.



Two different PCR instruments were used in the amplification of a 1.5 kb fragment from the human cathepsin K gene: the Tetrad™ Thermal Cycler from Bio-Rad as the "conventional cycler" and the new Piko™ Thermal Cycler from Finnzymes Oy as the "fast cycler." With Phusion Flash PCR Master Mix, the PCR run could be completed faster than with either a *Pyrococcus furiosus*-based fusion DNA polymerase or a *Thermus aquaticus* DNA polymerase developed for fast PCR. Competitor's DNA polymerases were from major suppliers.

Finnzymes' High Performance PCR

To obtain PCR results faster than ever before, Finnzymes provides and supports a truly integrated solution. It combines a fast proofreading DNA polymerase, a high-speed cycler and ultra-thin walled tubes: Phusion Flash PCR Master Mix, the Piko™ Thermal Cycler and Ultra-Thin Wall (UTW™) Vessels. Finnzymes' High Performance PCR enables DNA amplification in as little as 10 minutes!

Ordering Information

Phusion™ Flash High-Fidelity PCR Master Mix	
F-548S	100 reactions (20 µl each) or 40 reactions (50 µl each)
F-548L	500 reactions (20 µl each) or 200 reactions (50 µl each)

Thermal Cyclers	
TCP0024	Piko™ Thermal Cycler 24-well system
TCP0096	Piko™ Thermal Cycler 96-well system
UTW™ Vessels	
For a complete listing of product numbers, pricing, and additional product information, please visit Finnzymes Instruments' website at www.finnzymesinstruments.com .	

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The quality control of Finnzymes Oy is certified according to standard SFS-EN ISO9001:2000.



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