

Now sold as  
Thermo Scientific

# Phusion® Blood Direct PCR Kit

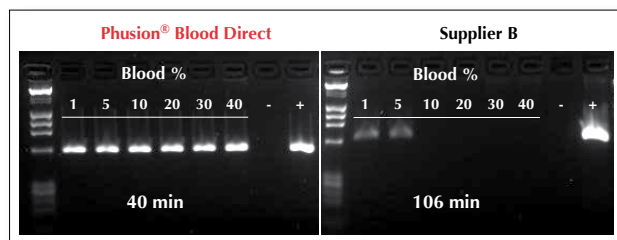
DIRECT PCR™



FINNZYMES

## PCR from blood without prior DNA purification

Finnzymes' Phusion® Blood Direct PCR Kit is an ideal choice for amplification of DNA from whole blood. It eliminates the need for DNA extraction or sample preparation prior to PCR. The kit utilizes a modified Phusion® Hot Start II High-Fidelity DNA Polymerase. This highly processive and robust PCR enzyme is extremely tolerant of the inhibitors present in blood and retains its activity even at 40 % blood concentration. Phusion Blood Direct PCR Kit includes a complete set of optimized reagents and control primers. It allows analysis of a broad spectrum of blood samples.



**Figure 1. Phusion Blood Direct PCR Kit delivers superior performance even at very high blood concentrations.** Phusion Blood Direct PCR Kit was compared to another kit designed for PCR directly from blood. A 588 bp genomic DNA fragment was amplified in the presence of increasing blood concentration in the reaction mixture. PCR was performed according to suppliers' instructions using Finnzymes' Piko® Thermal Cycler and ultra-thin walled UTW® reaction vessels. Total cycling times indicated at bottom. + and - denote control reactions with or without purified DNA.

## Robust amplification from blood

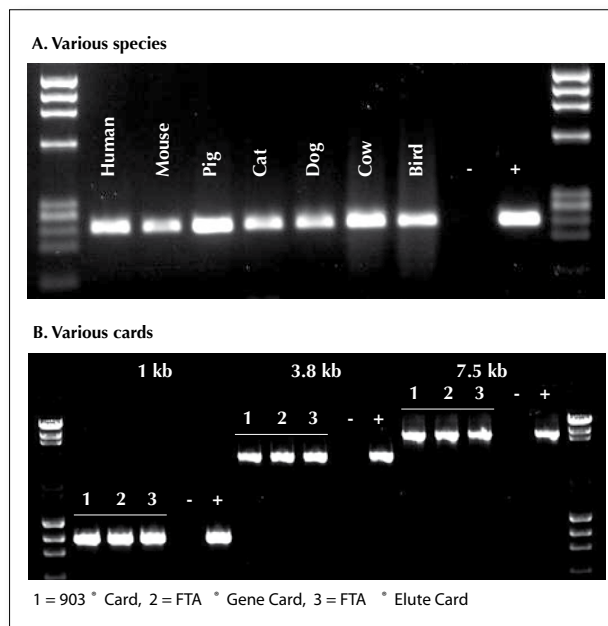
Phusion Blood Direct PCR Kit is designed for efficient amplification of DNA from various types of blood samples. The reaction components are optimized for PCR in the presence of blood. This, together with an extremely robust DNA polymerase, ensures excellent results with blood containing EDTA, heparin, or citrate as well as with blood stored on various types of filter papers, even those treated with preservatives. This kit is also compatible with blood from various species.

[www.finnzymes.com](http://www.finnzymes.com)

Phusion®, Piko® and UTW® are registered trademarks of Finnzymes Oy or its affiliates. Finnzymes Oy and its affiliates are part of Thermo Fisher Scientific. 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. FTA® and 903® are registered trademarks of companies within the Whatman Group. Notice: Purchase of Piko® Thermal Cycler conveys a limited, non-transferable immunity from suit for the purchaser's own internal research and development and applied fields other than human in vitro diagnostics only under U.S. patents Nos. 5,038,852, 5,333,675, 5,475,610 (claims 160-163 only), and 5,656,493 and non-U.S. counterpart claims as applicable. Quality system of Finnzymes Oy is certified according to standard SFS-EN ISO9001:2008. BN0607107

## Advantages

- No need for DNA extraction
- Allows up to 40 % blood in the PCR reaction
- Tolerates heparin, citrate, and EDTA, and is compatible with blood stored on various types of filter papers
- Modified Phusion Hot Start II DNA Polymerase produces specific and accurate results with high yields and short protocol times



**Figure 2. Phusion Blood Direct PCR Kit allows robust amplification from a wide variety of template sources.** A) Amplification of a 237 bp DNA fragment from whole blood of different vertebrates (5 % blood in the reaction). B) Amplification of three DNA fragments from human blood collected on various filter papers. Piko® Thermal Cycler and UTW® reaction vessels were used in PCR. + and - denote control reactions with or without purified DNA.

## Ordering information

Phusion® Blood Direct PCR Kit	
F-547S	100 rxns in 20 µl
F-547L	500 rxns in 20 µl