

Phusion® Blood Direct PCR Kit



PCR from blood without prior DNA purification

Finzymes' 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 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 allows analysis of a broad spectrum of blood samples.

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 DNA Polymerase produces specific and accurate results with high yields and short protocol times

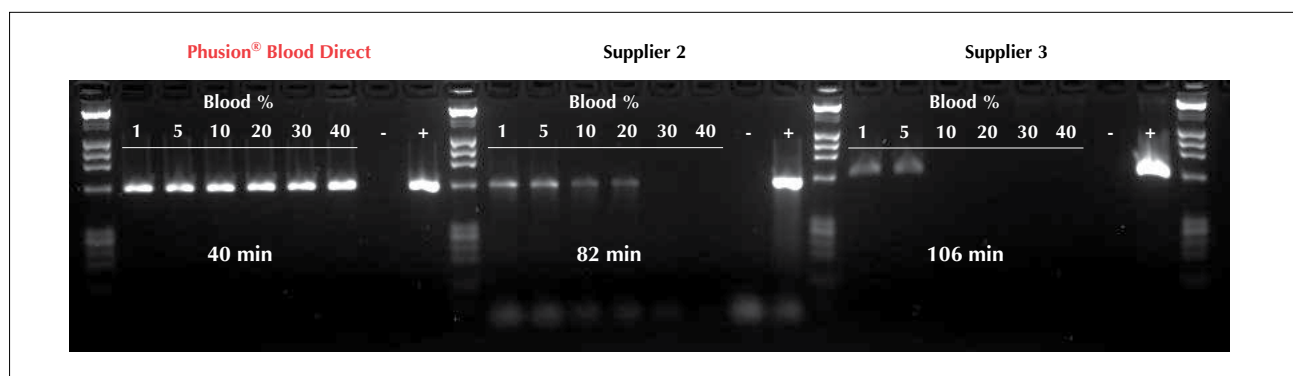


Figure 1. Phusion Blood Direct PCR Kit delivers superior performance even at very high blood concentrations. Kits designed for direct blood PCR from three suppliers were compared by amplifying a 588 bp genomic DNA fragment in the presence of increasing blood concentration in the reaction mixture. PCR was performed according to suppliers' instructions (35 cycles, except 40 cycles with the kit from Supplier 3) using Finzymes' 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.

Kit components

Kit component	F-547S	F-547L
Phusion® Blood DNA Polymerase	40 µl	200 µl
2 x Phusion® Blood PCR Buffer (includes dNTPs and MgCl ₂)	1 ml	5 x 1 ml
50 mM EDTA	0.5 ml	0.5 ml
50 mM MgCl ₂	1.5 ml	1.5 ml
100 % DMSO	0.5 ml	0.5 ml
Universal Control Primer Mix	40 µl	40 µl

Ordering information

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

Improve PCR performance with Finnzymes' instruments and vessels



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

www.finnzymes.com

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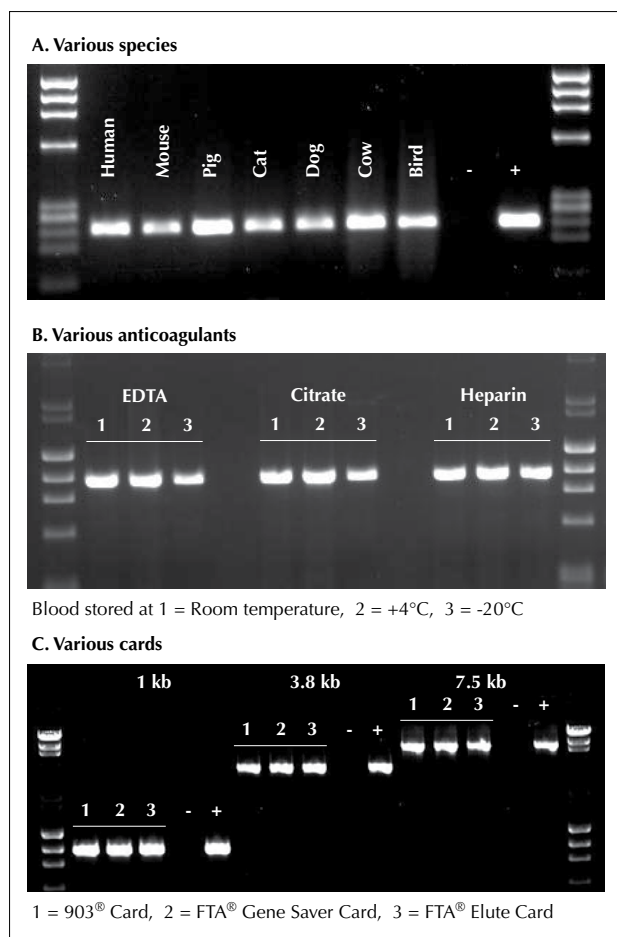


Figure 2. Phusion Blood Direct PCR Kit allows robust amplification from a wide variety of template sources. A) Amplification of a 237 bp DNA fragment from whole blood of different vertebrates (5 % blood in the reaction). B) Amplification of a 1 kb DNA fragment from human blood preserved with EDTA, citrate, or heparin and stored at different temperatures (5 % blood in the reaction). C) 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.