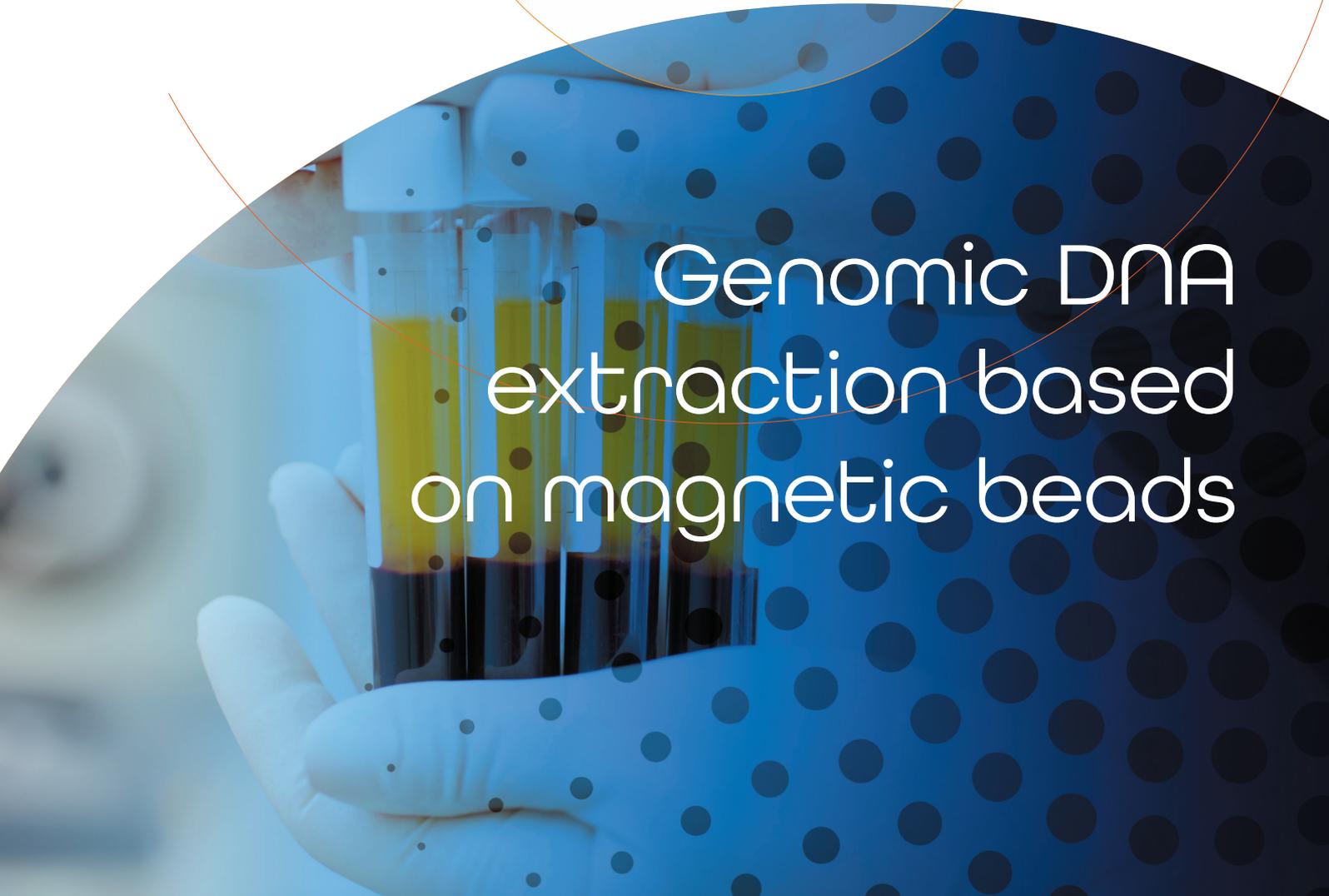


Clean **na**

Clean Blood & Tissue

DNA Kit

Genomic DNA
extraction based
on magnetic beads



Flexible genomic DNA extraction

Since the discovery of DNA, scientists have acquired tons of knowledge about the building blocks of life. Medicine has made great improvements with this information, but a major part of the functioning of our DNA is still a mystery. For better prevention and treatment of for example genetic diseases and cancer, more research is needed. We offer the Clean Blood & Tissue DNA Kit for a great start to your experiments.

The genomic DNA extraction kit does not require heating. It can process a high number of different sample types, such as fresh or frozen whole blood, buffy coat, saliva, cultured cells or up to 10 mg of tissue. EDTA, Citrate as well as Heparin Blood tubes can be used, and the high quality extracted DNA is immediately ready for downstream applications.

Benefits:



Easy automation



Wide variety of sample types



Suitable for PCR/NGS

Application

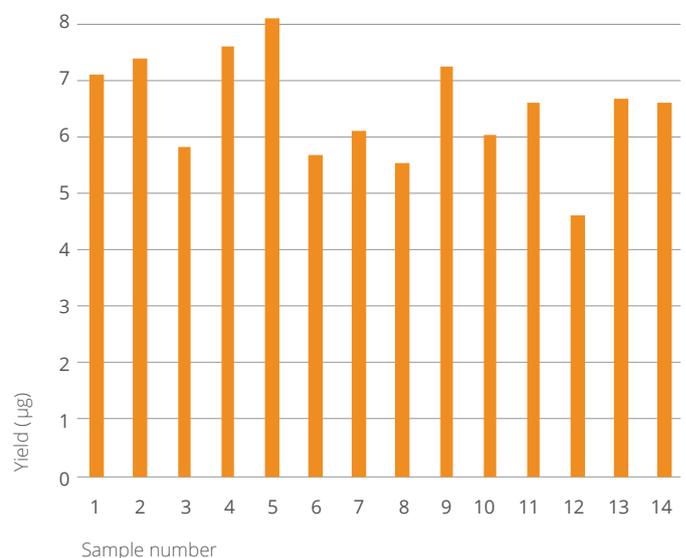
As for downstream applications, the extracted DNA can directly be used for (q)PCR and Next Generation Sequencing. The research areas in which the kit can be used are very broad, such as cancer research, women's health and clinical genetics. Development of personalized medicine, which can be applied for choosing the optimal dose and type of drugs for each patient, is also an important application area of the Clean Blood & Tissue DNA Kit.

Proof of principle

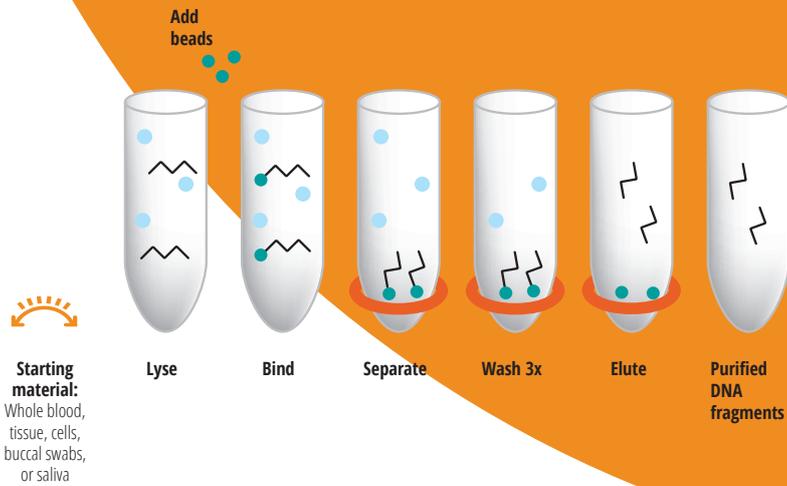
To show the DNA yield of our kit, genomic DNA was extracted from 200 μ L whole blood, using the Clean Blood & Tissue DNA Kit on the KingFisher Flex 96 instrument from Thermo Scientific. After, we determined the DNA yield by PicoGreen quantification. Figure 1 shows the yield for 14 samples.

FIGURE 1.

Yield of genomic DNA extracted from 200 μ L whole blood.



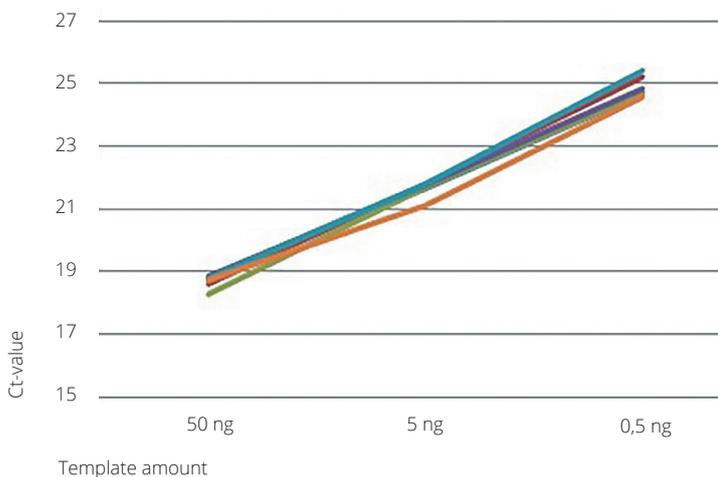
Workflow



We lyse the samples using our specially formulated lysis buffers, which are optimized for the various types of starting material. Magnetic beads are added and DNA binds to them, after which the beads with DNA are separated from the lysate using a magnetic plate. Following a few rapid wash steps to remove trace contaminants, the purified DNA is eluted from the magnetic beads using an elution buffer or molecular biology grade water.

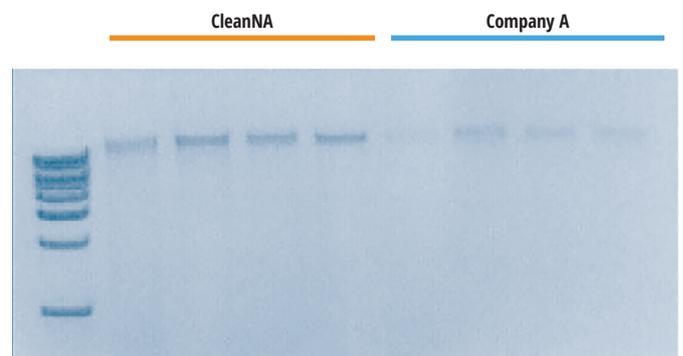
Figure 2 shows the purity of the extracted DNA. Genomic DNA was extracted from whole blood, using the Clean Blood & Tissue DNA Kit. Concentrations have been determined using the Denovix DS-11. Three different template amounts (50 ng, 5 ng and 0.5 ng) were used in a 20 μ L SYBR qPCR reaction. As shown by the Ct-values, increasing by only three cycles per 10 fold dilution, the isolated genomic DNA is free of inhibition.

FIGURE 2.
qPCR reaction results of different amounts genomic DNA extracted from whole blood.



In Figure 3, a comparison of extraction product for CleanNA and company A is shown. Using the Clean Blood & Tissue DNA Kit and Company A's Genomic DNA isolation kit, genomic DNA was extracted from buccal swabs. For each sample, 10% of the extracted DNA sample was loaded on a 0.8% agarose gel.

FIGURE 3.
Agarose gel (0.8%) with genomic DNA extracted from buccal swabs using the Clean Blood & Tissue DNA Kit and Company A's kit.



About CleanNA

Isolation of nucleic acids often comes with challenges and CleanNA thinks that no researcher should have to face them alone. At our facilities in the Netherlands, we produce nucleic acid isolation kits and reagents. We offer complete solutions with magnetic beads that meet researchers' needs while significantly reducing their hands-on time.

Contact

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www.cleanna.com

Ready to order?

Order via your local distributor or contact us via our details below.

Order info

Product	Preps	Part Number
Clean Blood & Tissue DNA Kit	96	CBT-D0096
Clean Blood & Tissue DNA Kit	384 (4 x 96)	CBT-D0384

Product	Pack size	Part Number
Clean Magnet Plate 96-Well	1 Plate	CMAG-96-RN50

The Clean Blood & Tissue DNA Kit is distributed by:



Check our website for all our distributors: