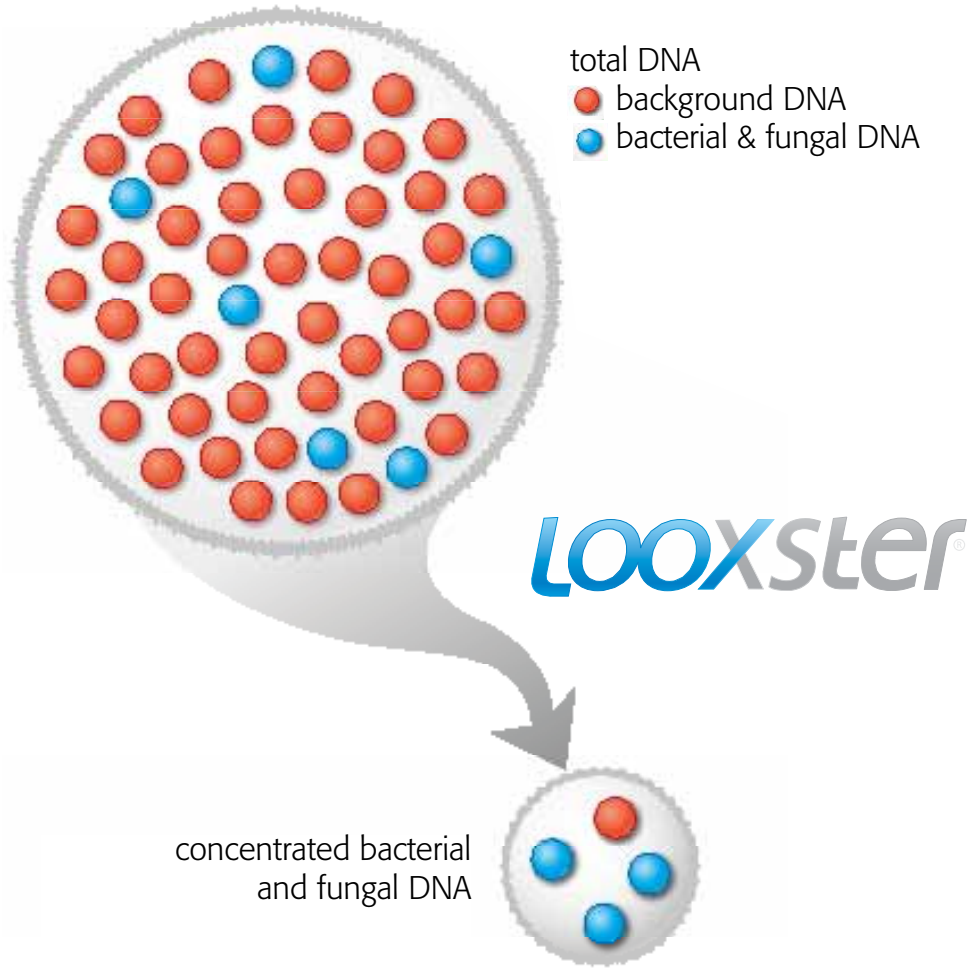
analytikjena

LOOXster®

Enabling technology for bacterial and fungal nucleic acid detection

- Enrichment of bacterial or fungal DNA
- Reduction of host background DNA
- Improvement of performance and sensitivity of downstream protocols



Life Science

LOOXSTER®

Enabling technology for bacterial and fungal nucleic acid detection

Our value proposition

LOOXSTER® is an enabling technology that makes DNA analyses more sensitive and methods for DNA preparation more effective.

What does LOOXSTER® do?

LOOXSTER® is able to enrich prokaryotic and fungal DNA molecules in samples containing an excess of higher eukaryotic DNA. Due to the reduction of most of the background DNA LOOXSTER® makes large sample sizes accessible to analytical and preparative downstream applications.

How can LOOXSTER® help you?

In qPCR target DNA concentration is crucial for reliable and sensitive analyses. To demonstrate the LOOXSTER®-effect 50 µg of human genomic DNA isolated from an EDTA blood sample was spiked with 10^3 copies of *E.coli* DNA and 200 ng of LOOXSTER®-treated and untreated template DNA was used for qPCR. The comparative qPCR shows a ΔCt of 5,23 revealing a 37,5 fold increase in target DNA concentration in the LOOXSTER®-sample compared to the untreated counterpart.

Features

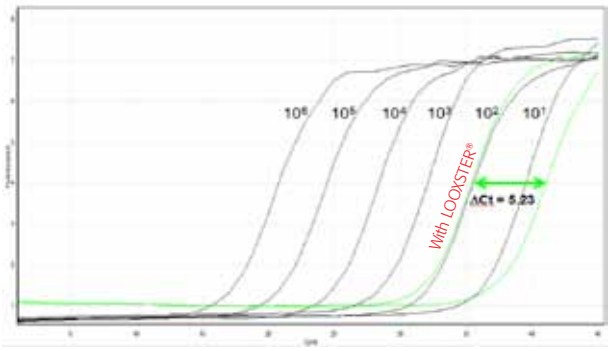
- Enrichment of prokaryotic and fungal DNA in samples containing an excess of higher eukaryotic DNA
- Removal of more than 95 % of higher eukaryotic DNA
- Up to 300 µg of input-DNA
- DNA clean-up included

How does LOOXSTER® work?

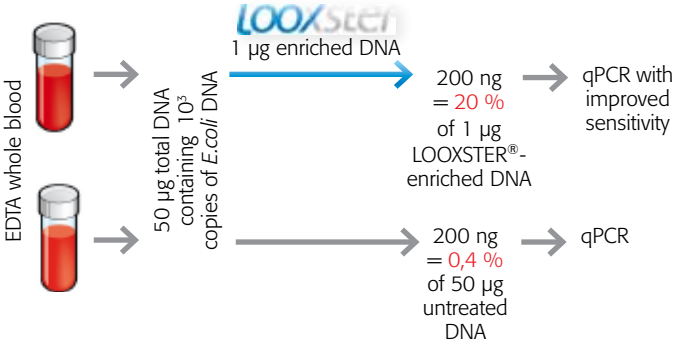
LOOXSTER® uses the specific affinity of the CXXC finger protein 1 (CFP1) for non-methylated CpG-dinucleotides[1]. DNA containing non-methylated CpG-dinucleotides binds efficiently to LOOXSTER® and can therefore be separated from DNA that underwent CpG methylation[2]. In general, the efficiency of LOOXSTER® DNA enrichment depends on differential DNA G+C contents and DNA methylation rates among species.

What are typical fields of LOOXSTER® application?

PCR and qPCR, array analysis, DNA sequencing, library construction etc. in pathogen detection[3-7], food and biosafety, biopharma, molecular ecology and microbiome research.



Comparative qPCR



LOOXSTER® principle

Order information

LOOXSTER® Blood & Tissue DNA Kit - KFFLX

Complete sample prep comprising mechanical lysis, DNA extraction and LOOXSTER® enrichment, operated on a KingFisher® FLEX instrument.

Order number	Quantity
847-0209500401	12 reactions
847-0209500402	24 reactions

LOOXSTER® Enrichment Kit

Manual LOOXSTER® enrichment from up to 300 µg total DNA preparation.

Order number	Quantity
847-0209500302	10 reactions

References

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