

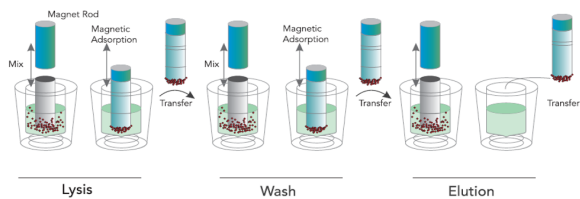
Isolation of genomic DNA from 500ul saliva samples on Automated Extraction Platforms

The isolation of genomic DNA from saliva samples is an initial and crucial step for various diagnostic workflows. Clinical applications such as testing for genetic markers, HLA typing, biomarker discovery, newborn screening, and sequencing are widely performed in laboratories worldwide.

Sensitivity and performance of biomolecular detection methods like qPCR, next-generation sequencing, and microarrays, are constantly improving. But these platforms require extraction of nucleic acids from the sample prior to processing.

The Quickpure® saliva gDNA Extraction Kit from Cambrian Bioworks is designed for rapid, high-throughput isolation of high-quality genomic DNA. The kit uses CamBeads® magnetic bead technology, ensuring reproducible recovery of PCR-ready DNA suitable for a broad range of applications.

With starting material of 500 µL fresh saliva (1ml stabilised saliva), the extraction protocol allows for use in a 16 reaction and in 96 reaction formats employed by established table-top extraction platforms like Kingfisher Flex, Kingfisher Duo and Zybion EXM 3000.



Quickpure saliva gDNA Kit

Technology	Magnetic Bead Based
Sample Type	≤ 500 µL fresh saliva (1 ml of stabilised saliva)
Typical Yield	3 - 10 µg (500 µL Saliva; depending on sample profile)
Elution Volume	50 - 100 µL

Materials and Methods:

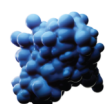
Saliva (fresh, stabilised) is lysed with a Lysis Buffer and Proteinase K. Following lysis incubation, binding of DNA to Cambrian's CamBeads is achieved in the presence of a Binding Buffer on the automation.

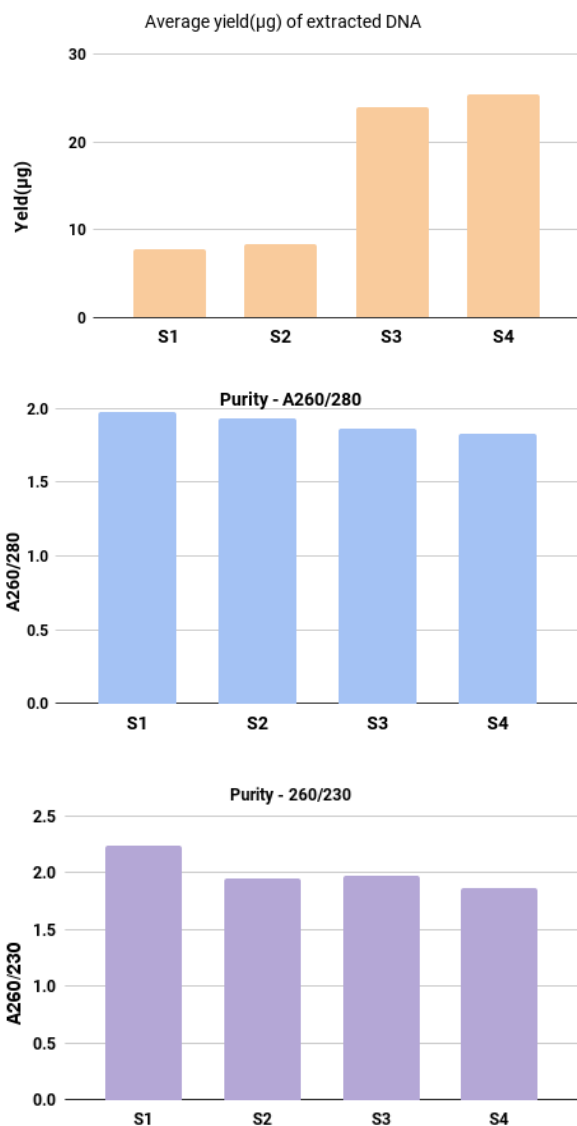


Subsequent DNA isolation is performed on the automation platform KingFisher® Duo or Flex, or the Zybion EXM 3000. The isolation principle is based on reversible adsorption of nucleic acids to paramagnetic Cambeads under appropriate buffer conditions.

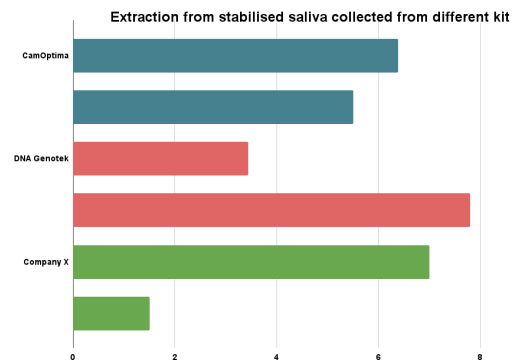
Zybion Extractions

Four stabilised saliva samples from different sources were collected in an CamOptima saliva collection kit and processed using Cambrian quickpure DNA isolation kit on a Zybion EXM-3000 system. Fig 2.0





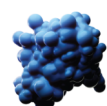
Extraction of DNA from different samples, stabilised in different stabilisation buffers:



The above data represents the concentration of the DNA eluted by Cambrians Quickpure gDNA kit applied on a Zybco-3000 automation system. All the measurements were performed on a Qubit spectrophotometer manufactured by Invitrogen.

A260/280, A260/230 and concentration values are measured using a Qubit instrument.

	Conc. (ng/uL)	A260/280	A260/230	Yield (μg)
Sample 1	77.95	1.98	2.24	7.7
Sample 2	83.1	1.93	1.95	8.3
Sample 3	239.45	1.86	1.97	23.9
Sample 4	254.05	1.83	1.87	25.4



Ordering Information

Quickpure Blood gDNA ZB-32	For Zybion Exm3000 series machines
Quickpure Blood gDNA KF-96	For Kingfisher Flex 96-well format
Quickpure Blood gDNA Mini	For mini spin columns based extractions
Quickpure Blood gDNA Midi	For midi spin columns based extractions



Cambrians Quickpure Blood gDNA extraction kit for Kingfisher flex and Zybion platforms are supplied along with compatible 8-Tip and 96-Tip combs and pre-filled buffers accordingly.

Performance using a manual Magnetic stand based extraction protocol:

Cambrians Blood gDNA kit powered by CamBeads can be used on an automated extraction platform or a magnetic stand based system for manual extraction protocols

Magstation-2



CamBeads Si

For more information about the protocols visit the following page:

<https://cambrianbioworks.com/product/dna-isolation-kit-for-kingfisher-flex/>

For free samples and demo requests:

<https://cambrianbioworks.com/free-product-samples/>

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