

sbeadex forensic kit

Customised kit solutions for DNA preparation for STR analysis

DNA-based detection assays including single tandem repeat (STR) analyses are an important tool for forensic analysis. Forensic samples often exhibit a range of chemical and physical characteristics that present a major challenge for DNA extraction technologies. The sbeadex™ forensic kit has been engineered specifically to meet these challenges.

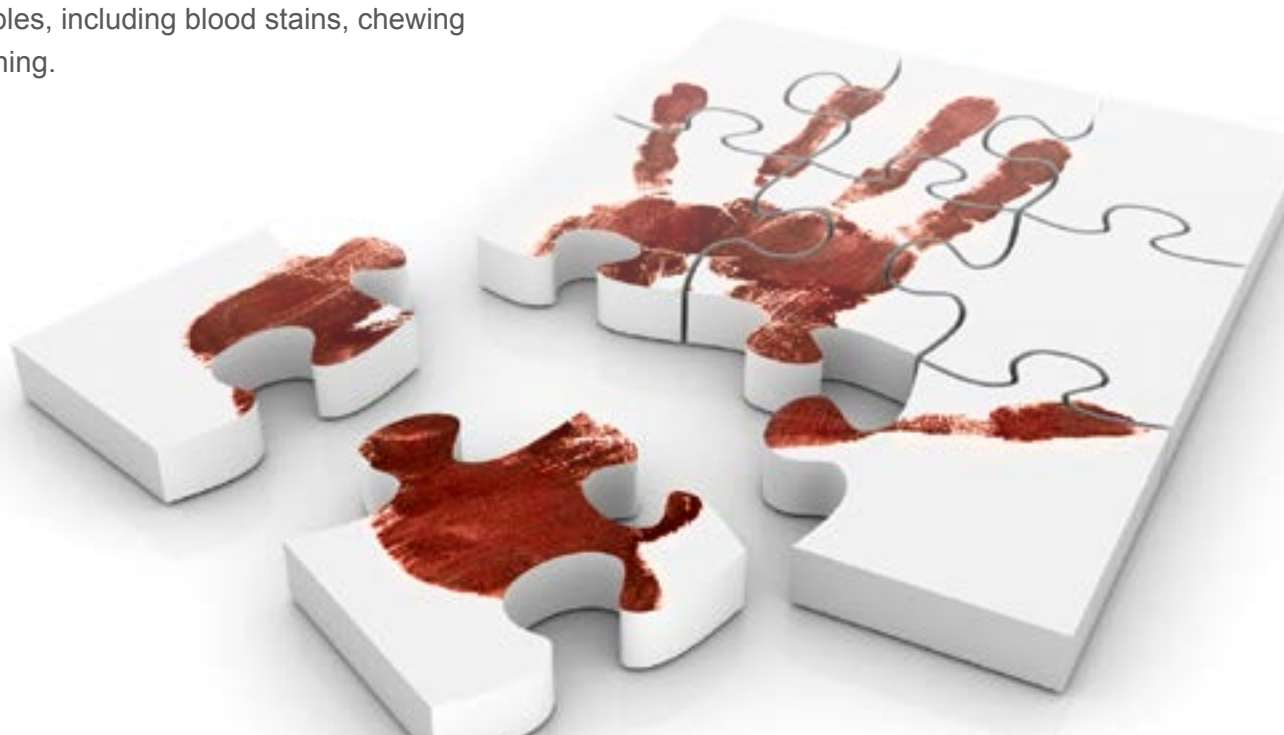
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In forensics, high quality and reliable DNA extraction is crucial due to the relatively low DNA yields that can be obtained from sensitive and challenging samples. LGC is an international supplier of tailor-made DNA extraction kits, and is primarily focused on automated, high-throughput extraction.

The sbeadex forensic kit enables flexible and reliable DNA extraction from a broad range of forensic samples, including blood stains, chewing gum and clothing.

The sbeadex forensic kit solution

- Development of customised protocols
- Suitable for a wide range of sample materials: lysis conditions can be tailored to specific requirements
- Volumes of kit components are highly flexible
- Quicker results - speed of extraction can be optimised
- Compatible with most popular robotic platforms.



DNA preparation protocol

sbeadex kits use magnetic separation for the preparation of nucleic acids. Superparamagnetic particles coated with sbeadex surface chemistry are used to capture nucleic acids from a sample. sbeadex utilises a novel two-step binding mechanism which, combined with the washing steps, removes impurities present in the sample matrix. After washing, the nucleic acid is eluted and is ready for use in a wide range of downstream processes.



Application areas

Table 1 details samples types that have been tested with the sbeadex forensic kit protocol.

Additional materials that can be tested with this kit:

- Cigarette butt
- Seal of envelope
- Fingernail
- Whole blood

LGC offers pilot studies to optimise the sbeadex protocol for other forensic materials.

	Onserts	Swab	Tape lift	Whole item
Blood stain		✓	✓	✓
Buccal swab				✓
Chewing gum		✓		✓
Drink container	✓	✓	✓	
Hair roots				✓
Touched items	✓	✓	✓	
Clothing		✓	✓	✓

Table 1: Examples of sample types tested

Advantages

- **High quality** – Consistent $A_{260/280}$ ratio and improved $A_{260/230}$ ratio
- **Easy to automate** – Magnetic microparticle handling offers flexibility in automated processing
- **Convenient** – All buffers are ready to use
- **Absence of PCR inhibitors** – No organic solvents or chaotrophic salts in final wash buffers.

Ordering information

Cat. No.	Kit	Number of extractions per kit
41501	sbeadex forensic	96
41510	sbeadex forensic	960
40701	mag nanogram	96
40710	mag nanogram	960

All kit components are available to purchase individually.

For more details please contact your local representative or visit our website.

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