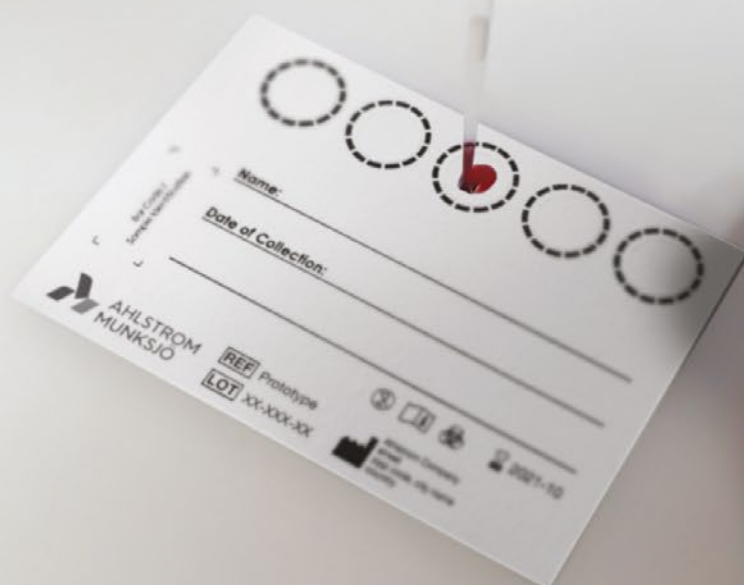


BIOSAMPLES COLLECTION AND PRESERVATION

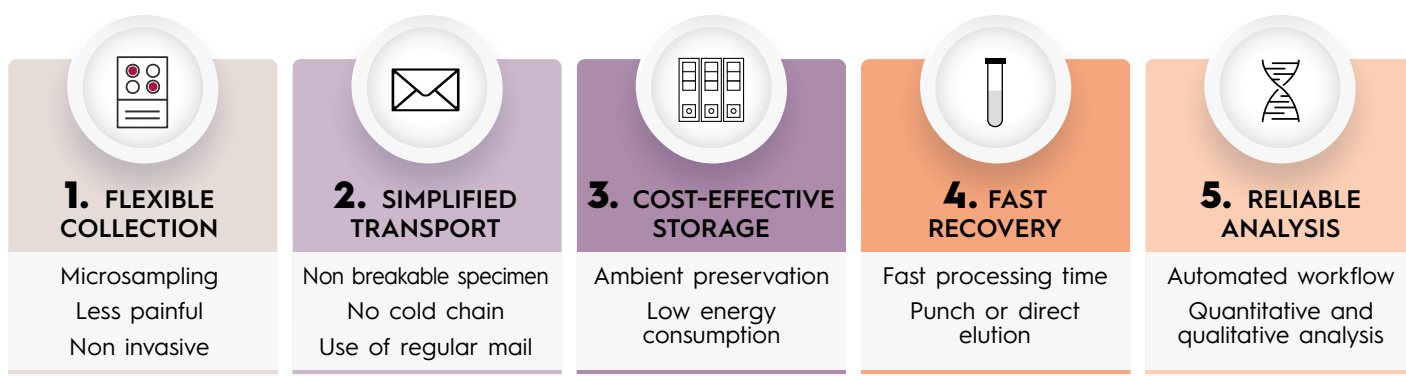
Easy and cost-effective collection,
transport and storage at ambient temperature



SPECIMEN COLLECTION CARDS

Our experience in biosamples collection

The Ahlstrom-Munksjö specimen collection cards portfolio is designed for microvolume sampling, transport and stabilization of biospecimens at ambient temperature. Minimal volumes for analysis, less equipment required, and only basic skills needed are all features that make our cards ideal to be used in any kind of environment and circumstances.



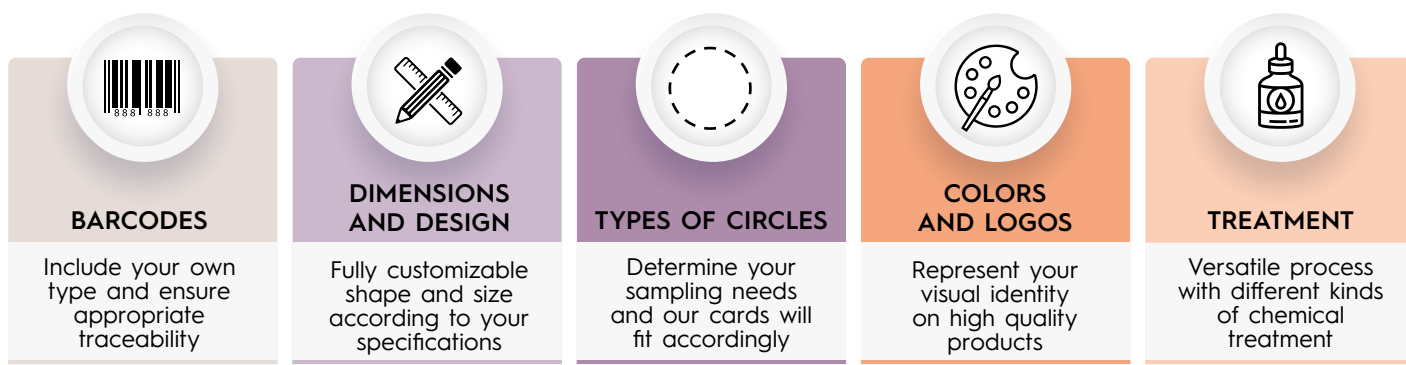
How do we make the difference?

- Expertise in manufacturing and treatment of fiber-based materials
- All products are self-certified ISO 18385:2016 forensics grade and manufactured according to ISO 9001:2015
- Responsive and highly skilled technical customer support
- Continuous innovation in Life Sciences

Our standard range is suitable for various diagnostics applications and our options for customized products help us to specifically address your needs.

How can we meet your needs? Our options for customization

To accommodate our customer needs, our specialized product offering includes various options for customization. Our cards can be chemically pretreated and customized in terms of design, color coding, bar coding and packaging.



Kits and accessories

To meet market and customers needs, we design custom and user-friendly kits making the collection process easy and reliable. Our kits contain all of the items you need to collect biosamples from different environments and transport them to expert analytical laboratories.

- Gloves
- Facemask
- Mailing envelope
- Swab
- Desiccant
- Multi-barrier pouch
- Instruction manual
- Barcoded labels
- Outer bag labeled with barcode and expiry date

The right solutions to your diagnostics needs



Screening of infectious diseases

BioSample Card

Measuring viral loads and monitoring the efficiency of antiretroviral treatments are rarely available in resource-limited countries because of the high costs and stringent requirements for transport and storage of biosamples. Thanks to ambient transport, our specimen collection cards improve access to vulnerable patient groups living in non-urban areas and ensure better therapy monitoring.



Forensics and Human Identification

GenSaver™ 2.0

DBS technology has become the preferred method for DNA samples collection for human genetics and forensic DNA identification. The reduced size of DBS allows easy storage of biosamples at ambient temperature, a key factor in forensic laboratories which typically handle a significant amount of samples simultaneously.



Genomics

GenReleaz™

The latest advancements in genomics have allowed a deeper understanding of even the most complex biological systems. The sequencing and analysis of genomes through high throughput DNA sequencing plays an essential role for assembling and analyzing the function and structure of the entire genomes.



TDM and Wellness

Autocollect™

The increase in popularity of biomarkers in basic and clinical research as well as in clinical practice contributed to make them the primary endpoints in clinical trials. Accuracy, sensitivity and reproducibility are key factors when it comes to developing effective tests for analytical performance validation.



Animal Screening

GenSaver™ 96 spots

Accurate diagnostic tests are essential to confirm the health status of animals, to identify pathogens, and for early detection of health conditions, which facilitates the safe trade in animals and animal products. Simple and reliable collection, shipment and storage of biological samples at veterinary facilities plays a fundamental role in the diagnostics process.



GenSaver™ 2.0

Ambient preservation of DNA for high quality analysis

Ahlstrom-Munksjö GenSaver™ and GenSaver™ 2.0 specimen collection cards are specifically designed for collection and transport of microvolumes of biological samples and long-term preservation of DNA at ambient temperature.

DNA preserved on GenSaver™ and GenSaver™ 2.0 can be used even after 22 years of ambient storage to generate high quality STR and Next Generation Sequencing data.



KEY FEATURES

- Long-term ambient preservation of DNA
- Antimicrobial activity
- Free of amplifiable human DNA
- Free of DNase and RNase
- Ready for automation: compatible with BSD 600 and other available punching systems

Different solutions for different samples

The card design and printing are customizable to better accommodate our customers' needs in terms of automation, color coding and barcoding. The two colors available are suitable for the collection of different kinds of biosamples:

- White cards for the collection of easily identified samples such as whole blood
- Pink cards for the collection of clear samples such as saliva, buccal cells, urine, bacterial cells (from colonies, glycerol stocks or bacterial cultures), tissue lysate, liquid biopsy or purified DNA

The 96-well card format finds application when repetitive dispensing is required in the clinical, hospital, biological, chemical, food & beverage, pharmaceutical, veterinary and forensic fields

Product	Cards/ Pack	Sample areas/card	Max. Vol loaded/ sample area (µl)	Ref. Number	Samples type
GenSaver™	100	4	125	8.564.0002.B-N	Blood
	100	2		8.564.0001.B-N	
	100	1		8.564.0000.B-N	
GenSaver™ Color	100	4	80	8.565.0002.B-N	Saliva, buccal cells, urine, bacterial cells, tissue lysate, liquid biopsy, purified DNA
	100	2		8.565.0001.B-N	
	100	1		8.565.0000.B-N	
GenSaver™ 2.0	25/50/100	96	5	8.566.0003.B-G/8.566.0003.B-K/ 8.566.0003.B-N	Blood
	100	4	125	8.566.0002.B-N	
	100	2		8.566.0001.B-N	
	100	1		8.566.0000.B-N	
GenSaver™ Color 2.0	25/50/100	96	5	8.567.0003.B-G/8.567.0003.B-K/ 8.567.0003.B-N	Saliva, buccal cells, urine, bacterial cells, tissue lysate, liquid biopsy, purified DNA
	100	4	125	8.567.0002.B-N	
	100	2		8.567.0001.B-N	
	100	1		8.567.0000.B-N	

APPLICATIONS

- Forensics
- Human Identification
- Paternity Testing
- Animal genetic screening
- Biobanking
- Genomics
- Molecular biology
- Whole genome amplification
- Plasmid screening

GenReleaz™

Fast and efficient recovery of DNA

Ahlstrom-Munksjö GenReleaz™ and GenReleaz™ Color specimen collection cards are specifically designed for collection and transport of biosamples like blood, saliva, buccal cells, urine and for fast elution of DNA even after a long preservation at ambient temperature.

These cards facilitate rapid elution of nucleic acids and make DNA ready for downstream analyses in less than 30 minutes with a simple elution protocol.



KEY FEATURES

- Long-term ambient preservation of DNA
- Fast and simple DNA elution for high recovery
- Antimicrobial activity
- Free of amplifiable human DNA
- Free of DNAses & RNAses

Different solutions for different samples

The card design and printing are customizable to better accommodate our customers' needs in terms of automation, color coding and barcoding. The two colors available are suitable for the collection of different kinds of biosamples:

- White cards for the collection of easily identified samples such as whole blood
- Purple cards for the collection of clear samples such as saliva, buccal cells, urine, bacterial cells (from colonies, glycerol stocks or bacterial cultures), tissue lysate, liquid biopsy.

Product	Cards/ Pack	Sample areas/card	Max. Vol loaded/ sample area (µl)	Ref. Number	Samples type
GenReleaz™	100	4	125	8.295.0002 B-N	Blood
	100	2		8.295.0001 B-N	
	100	1		8.295.0000 B-N	
GenReleaz™ Color	100	4	100	8.296.0002 B-N	Saliva, buccal cells, urine, bacterial cells
	100	2		8.296.0001 B-N	
	100	1		8.296.0000 B-N	

APPLICATIONS

- Forensics
- Human Identification
- Genomics
- Molecular biology
- Animal genetic screening
- Whole genome amplification
- Plasmid screening
- Pharmacogenomics

AutoCollect™

High quality automation in DBS

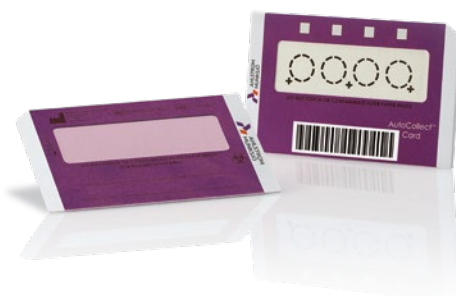
Ahlstrom-Munksjö AutoCollect™ specimen collection cards for high-throughput environments work efficiently in both DBS punch and direct elution.

They are designed for microvolume sampling, transport and storage of dried blood spot (DBS) at ambient temperature.

The cassette format of the card with high stiffness provides a suitable fit with main laboratory automated equipment available on the market, allowing reliable DBS card processing, from detection of dried blood spot to the preparation of samples ready for LC/MS analysis.

The standard AutoCollect™ and AutoCollect™ Color cards are suitable for short-term storage (about 2 years). We also offer AutoCollect™ cards in GenSaver™ 2.0 (AutoCollect™ GS) and GenReleaz™ (AutoCollect™ GR) formats for increased performance and features.

Product	Cards/ Pack	Sample areas/card	Max. Vol loaded/ sample area (µl)	Ref. Number	Samples type
AutoCollect™	100	4	20	8.560.0003.B-N	Blood
AutoCollect™ Color	100	4	10	8.561.0003.B-N	Saliva, buccal cells, urine, bacterial cells, tissue lysate, liquid biopsy
AutoCollect™ GS 2.0	100	4	20	8.566.0004.B-N	Blood
AutoCollect™ GS Color 2.0	100	4	15	8.567.0006.B-N	Saliva, buccal cells, urine, bacterial cells, tissue lysate, liquid biopsy, purified DNA
AutoCollect™ GR	100	4	18	8.295.0003.B-N	Blood
AutoCollect™ GR Color	100	4	10	8.296.0003.B-N	Saliva, buccal cells, urine, bacterial cells



KEY FEATURES

- Mass Spectrometry (MS) grade purity fiber-based material
- Microsampling
- Stable and precise design dimensions
- Fitting suitable for main automated laboratory devices

APPLICATIONS

- Pharmacokinetic
- Therapeutic drugs monitoring
- Preclinical and clinical studies
- Human identification
- Toxicology
- Forensics
- Biomarkers screening

BioSample and 5 circles cards

Biospecimen microsampling made easy

Ahlstrom-Munksjö BioSample cards are designed for micro-volume sampling, transport and ambient storage of biological samples. These cards are made of white and pure absorbent fibers and contain no wet-strength additives or chemicals. Thus, they ensure reproducible collection and minimize possible interferences for reliable analysis of targeted analytes like small molecules, proteins, nucleic acids or vitamins.

The cards with reference number 8.460.xxxx.A are CE marked in EU as In Vitro Diagnostic medical device in compliance with the Directive 98/79/EC. Drying racks are available to facilitate drying of the cards at ambient temperature.



KEY FEATURES

- Reliable and reproducible sample collection
- Even and uniform sample distribution
- Customizable design and printing
- Rigorous quality control and manufacturing according to ISO 13485:2016 and ISO 9001:2015 standards

Different solutions for different samples

BioSample cards are available in different formats:

- Standard format with cover for sample protection
- Simple format, without cover for easier processing
- With or without perforated circles

Product	Cards/ Pack	Sample areas/card	Max. Vol loaded/ sample area (µl)	Ref. Number	Samples type
BioSample RUO	100	5	70	8.460.0001.B-N	Blood
BioSample RUO perforated circles	100	5		8.460.0005.B-N	
BioSample-CE perforated circles	100	5		8.460.0038.A-N	
5 circles card RUO	100	5		8.460.0004.B-N	
5 circles card-CE	100	5		8.460.0004.A-N	
5 circles card-CE-perforated circles	100	5		8.460.0012.A-N	

RUO: Research Use Only

APPLICATIONS

- HIV viral load testing
- Infectious diseases screening (incl. Hepatitis B, C and Syphilis)
- Protein-based analysis
- Lipid-based analysis
- Genomics
- Human Identification
- Forensics

Ahlstrom-Munksjö is a global leader in fiber-based materials, supplying innovative and sustainable solutions to its customers. Our mission is to expand the role of fiber-based solutions for sustainable everyday life. Our offering include filter materials, release liners, food and beverage processing materials, decor papers, abrasive and tape backings, electrotechnical paper, glass fiber materials, medical fiber materials and solutions for diagnostics as well as a range of specialty papers for industrial and consumer end-uses. Our annual net sales are about EUR 3 billion and we employ some 8,000 people. The Ahlstrom-Munksjö share is listed on the Nasdaq Helsinki and Stockholm.



CONTACT AHLSTROM-MUNKSJÖ SALES

EMEA

☎ +49 37347 830

✉ diagnostics@ahlstrom-munksjo.com

North America

☎ +1 717 486 3438

✉ diagnostics@ahlstrom-munksjo.com

Asia-China

☎ +86 21 233 07 330

✉ diagnostics@ahlstrom-munksjo.com

South America

☎ +55 19 3878 9238

✉ diagnostics@ahlstrom-munksjo.com

LEARN MORE: WWW.AHLSTROM-MUNKSJO.COM

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