

AHLSTROM

Sold by

GenTegra

Ahlstrom GenSaver™ And GenSaver™ 2.0

GenSaver™
Card

AHLSTROM

Place Bar Code /
Sample identification here

Lot No. 15-116-A04

Place Bar Code /
Sample identification here

© 2015 Ahlstrom GenSaver™
All rights reserved.

Ahlstrom GenSaver™

designed for Forensics and Biobanking markets

Ahlstrom GenSaver™ is a collection card treated with a new-to-market proprietary chemistry intended to prevent environmentally induced degradation for long-term preservation of DNA from biological fluids stored at ambient temperature.



Key Features

- Long-term ambient protection of DNA from dried matrix spots
- High quality STR profiles and NGS data
- High qualitative and quantitative DNA recovery
- Suitable for direct DNA amplification from a paper punch
- Customizable design

GenSaver™ and **GenSaver™ Color** cards are designed for ambient temperature collection, transport and storage of DNA from biological fluids. These cards are made with a fiber-based material of pure absorbent fibers functionalized with a proprietary chemical formulation intended to prevent environmentally induced degradation for long-term ambient preservation of DNA. GenSaver™ card is recommended for collection of blood while GenSaver™ Color card is recommended for colorless biosamples such as saliva, buccal cells and urine and turns white on the area on which the biological sample is collected.

GenSaver™ 2.0 and **GenSaver™ Color 2.0** cards offer additional features in order to prevent the growth of microorganisms during the long-term ambient storage of DNA.

Typical characteristics

Product	Cards/ Pack	Sample areas/card	Max. Vol loaded/ sample area (µl)	Ref. Number	Samples type	Max. storage	Applications
Ahlstrom GenSaver™	25/100	4	125	GSD4-25/GSD4-100	Blood	20 years	Human Identification (direct-multiplex PCR and quantitative PCR, STR & NGS genotyping) Genomics Animal Identification Plasmid screening Transgenic identification
	25/100	2		GSD2-25/GSD2-100			
	25/100	1		GSD1-25/GSD1-100			
Ahlstrom GenSaver™ Color	25/100	4	70	GSD4-25C/GSD4-100C	Saliva Buccal cells Urine	At least 10 years	
	25/100	2		GSD2-25C/GSD2-100C			
	25/100	1		GSD1-25C/GSD1-100C			
Ahlstrom GenSaver™ 2.0	25/100	4	125	GS2D4-25/GS2D4-100	Blood	20 years	
	25/100	2		GS2D2-25/GS2D2-100			
	25/100	1		GS2D1-25/GS2D1-100			
Ahlstrom GenSaver™ Color 2.0	25/100	4	70	GS2D4-25C/GS2D4-100C	Saliva Buccal cells Urine	At least 10 years	
	25/100	2		GS2D2-25C/GS2D2-100C			
	25/100	1		GS2D1-25C/GS2D1-100C			

Simple Collection

Long-term preservation

High quality genetic profiles

High-quality STR Profile

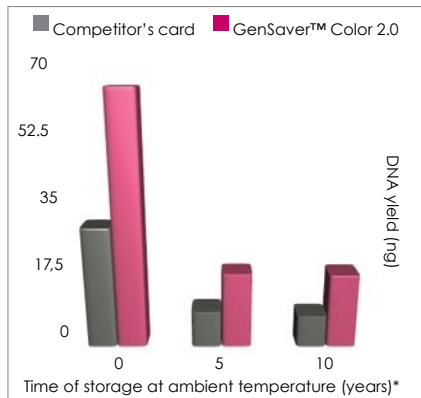
These data have been obtained from genomic DNA purified from 7 µl of female human saliva spotted on GenSaver Color 2.0 card, air dried for 24 h, then stored at room temperature for 10 years*.

Locus	Allele 1	Allele 2	Summary
DS1358	100%	100%	4 correct calls out of 4
vWA	100%	100%	4 correct calls out of 4
D16S539	100%	100%	4 correct calls out of 4
CSF1PO	100%	N/A	2 correct calls out of 2
TPOX	100%	N/A	2 correct calls out of 2
Yindel	N/A	N/A	0 correct calls out of 0
AMEL	100%	N/A	2 correct calls out of 2
D8S1179	100%	100%	4 correct calls out of 4
D21S11	100%	100%	4 correct calls out of 4
D18S51	100%	100%	4 correct calls out of 4
DYS391	N/A	N/A	0 correct calls out of 0
D2S441	100%	100%	4 correct calls out of 4
D19S433	100%	100%	4 correct calls out of 4
TH01	100%	N/A	2 correct calls out of 2
FGA	100%	100%	4 correct calls out of 4
D22S1045	100%	100%	4 correct calls out of 4
D5S818	100%	100%	4 correct calls out of 4
D13S317	100%	N/A	2 correct calls out of 2
D7S820	100%	100%	4 correct calls out of 4
SE33	100%	100%	4 correct calls out of 4
D10S1248	100%	N/A	2 correct calls out of 2
D1S1656	100%	100%	4 correct calls out of 4
D12S391	100%	100%	4 correct calls out of 4
D2S1338	100%	100%	4 correct calls out of 4



Electrophoregram for the STR amplification from purified DNA.

Total numbers of sample	2
Total of possible allele calls	76
Total correct allele calls	76
Percentage of Accuracy	100%
N/A: Non Applicable	



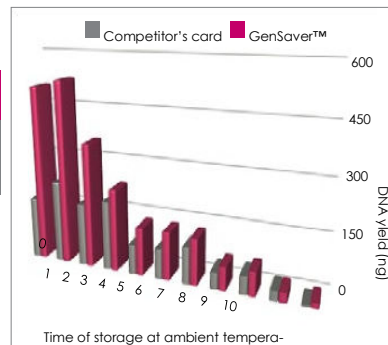
Total yield of genomic DNA quantified by real-time PCR

Percentage accuracy of allele calls for 20 loci determined by STR profiling of purified DNA.

Next Generation Sequencing Data

Ahlstrom card	Bases	≥ Q20	Reads	Mean Read Length
GenSaver™	18,009,506	16,991,742	206,815	87 bp
GenSaver™ Color 2.0	16,745,432	15,791,494	194,690	86 bp

NGS data obtained from DNA extracted from blood on GenSaver™ card, (GenSaver™) or saliva (GenSaver™ Color 2.0) stored for 10 years dried for 24 h, then stored at ambient temperature*. The high data quality is consistent at ambient temperature and demonstrates that Next Generation Sequencing is for 20 years*. DNA has achievable even after 10 years of storage of DNA at ambient been quantified by real temperature for both Ahlstrom cards.



Total yield of genomic DNA purified from paper discs taken from the center of 80 µl human blood spotted on GenSaver card, air dried for 24 h, then stored at ambient temperature for 20 years*. DNA has been quantified by real-time PCR.

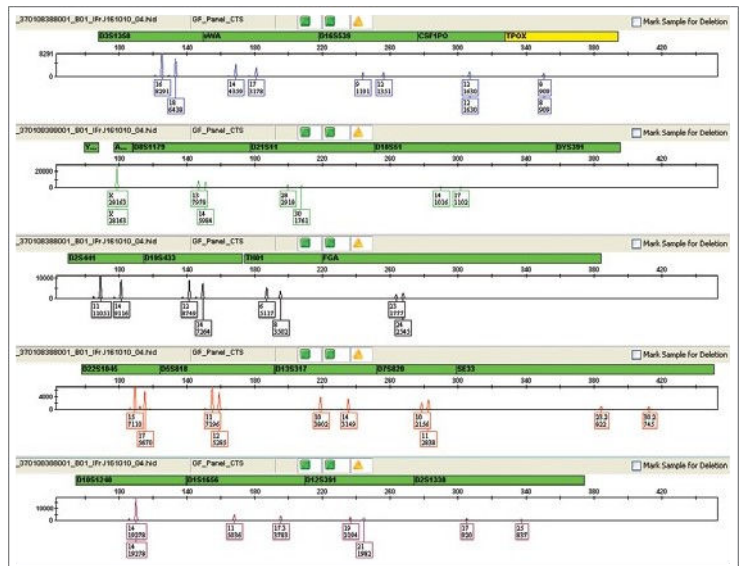
GenSaver™ and **GenSaver™ Color 2.0** cards produce significantly higher DNA yields than the competitor's card and provides high quality genetic profiles after several years of storage at ambient temperature*.

* Test performed with accelerated ageing conditions. Real time stability studies are ongoing to confirm these results.

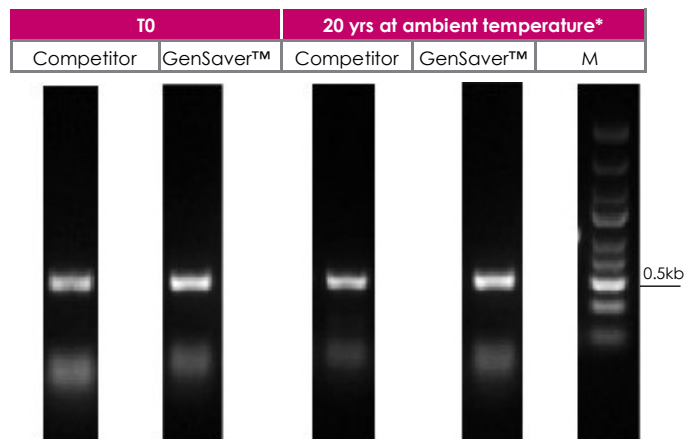
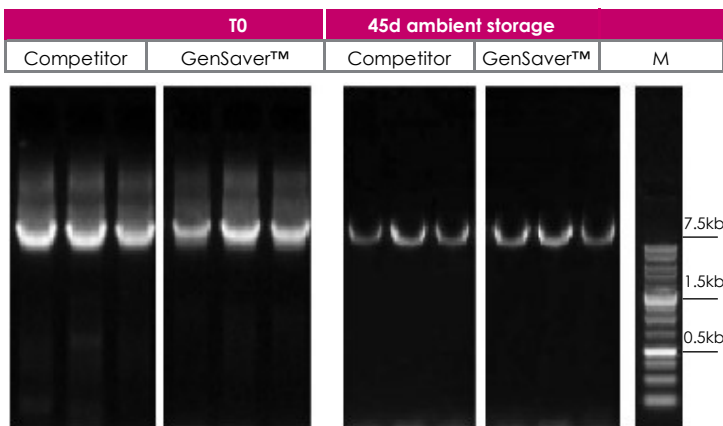
Suitability for direct DNA amplification

Locus	Allele 1	Allele 2	Summary
DS1358	100%	100%	6 correct calls out of 6
vWA	100%	100%	6 correct calls out of 6
D16S539	100%	100%	6 correct calls out of 6
CSF1PO	100%	100%	6 correct calls out of 6
TPOX	100%	100%	6 correct calls out of 6
Yindel	100%	N/A	3 correct calls out of 3
AMEL	100%	100%	6 correct calls out of 6
D8S1179	100%	100%	6 correct calls out of 6
D21S11	100%	100%	6 correct calls out of 6
D18S51	100%	100%	6 correct calls out of 6
DYS391	100%	N/A	3 correct calls out of 3
D2S441	100%	100%	6 correct calls out of 6
D19S433	100%	100%	6 correct calls out of 6
TH01	100%	N/A	3 correct calls out of 3
FGA	100%	100%	6 correct calls out of 6
D22S1045	100%	100%	6 correct calls out of 6
D5S818	100%	100%	6 correct calls out of 6
D13S317	100%	N/A	3 correct calls out of 3
D7S820	100%	100%	6 correct calls out of 6
SE33	100%	100%	6 correct calls out of 6
D10S1248	100%	100%	6 correct calls out of 6
D1S1656	100%	100%	6 correct calls out of 6
D12S391	100%	100%	6 correct calls out of 6
D2S1338	100%	100%	6 correct calls out of 6

Total numbers of sample	3
Total of possible allele calls	132
Total correct allele calls	132
Percentage of Accuracy	100%
N/A: Non Applicable	

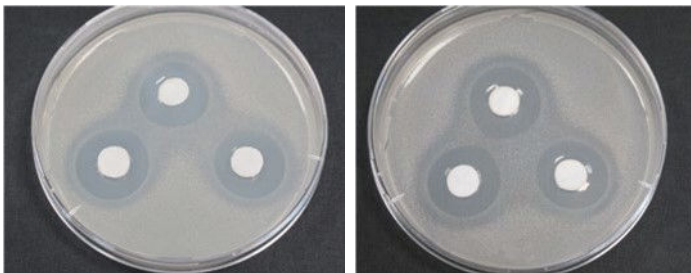


STR Electropherogram from direct DNA amplification from a 1.2 mm paper disc taken from the center of dried blood spots collected on GenSaver™ card.

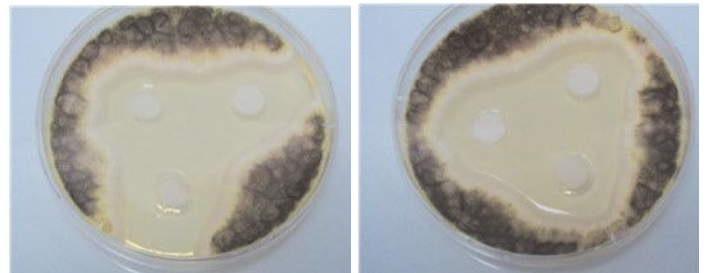


GenSaver card is fully compatible for direct DNA amplification from a paper disc, thus eliminating extraction step.

Antimicrobial activity of GenSaver 2.0 and GenSaver Color 2.0

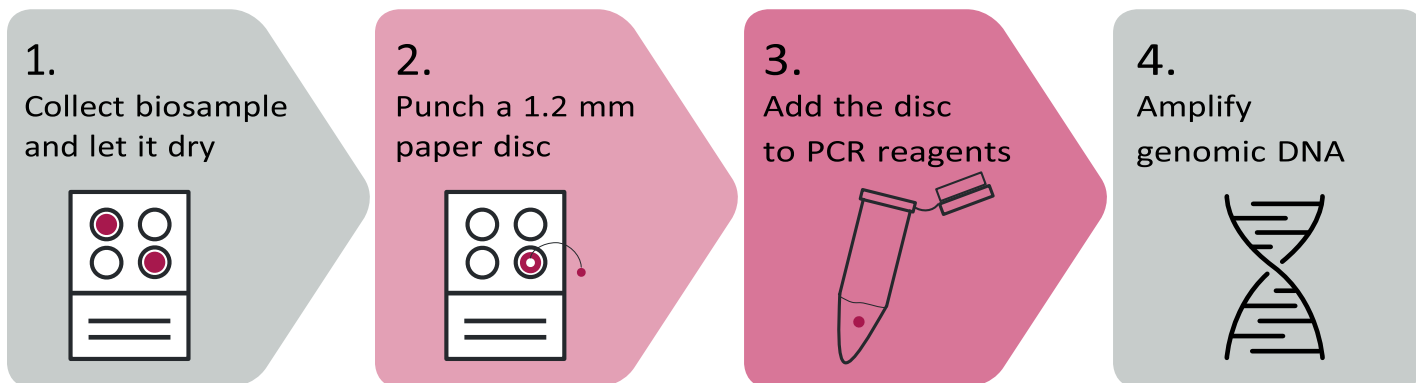


Zone of growth inhibition for *Bacillus subtilis* (seeded on classic nutrient medium 10^5 CFU/ml) grown in the presence of GenSaver 2.0 (left) and GenSaver Color 2.0 (right) discs.



Zone of growth inhibition for *Aspergillus niger* (seeded on sabiraud nutrient medium 10^5 spores/ml) grown in the presence of GenSaver 2.0 (left) and GenSaver Color 2.0 (right) discs.

Ahlstrom GenSaver™ & GenSaver™ 2.0



GenSaver™ and GenSaver™ 2.0 are available in a variety of standard formats with 1, 2, or 4 sample collection areas per card. White paper for blood collection and pink paper for buccal cells, saliva and urine samples. These cards are also available in customized designs according to the needs of the customers.

Sold by **GenTegra**

To purchase contact: GenTegra at sales@GenTegra.com or phone 1.925.461.3010

DISCLAIMER: The information supplied in this document is for guidance only and should not be construed as a warranty. All implied warranties are expressly disclaimed, including without limitation any warranty of merchantability and fitness for use. All users of the material are responsible for assuring that it is suitable for their needs, environment and end use. All data is subject to change as Ahlstrom deems appropriate. Refer to www.ahlstrom.com for contact information.