# CATALOGUE 2013 | 2014







# LIQUID HANDLING PRODUCTS

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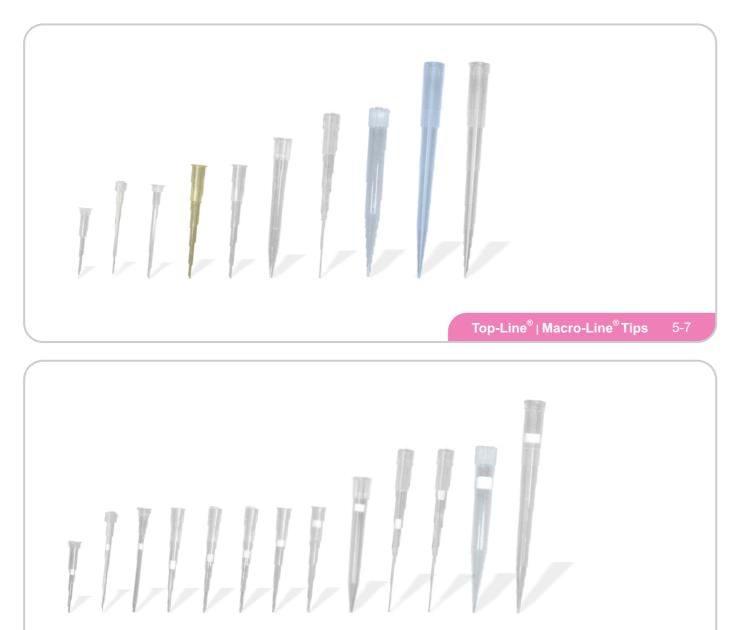
Uthleber Weg 14 D-99734 Nordhausen Germany

Tel.: +49(0)3631/46594-04 Fax: +49(0)3631/46594-10

E-Mail: info@ahn-bio.de Web: www.ahn-bio.de

#### Fourth Edition, 2013

# TIPS FILTER TIPS



<u>Top-Line<sup>®</sup> Filter Tips</u>

Liquid Handling

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#### Premium-Line<sup>®</sup> Tips | Filter Tips 11-13

## **Top-Line<sup>®</sup> Tips** Innovation for Science

# CEIVD metal-free

Optimized cone geometry with wide sealing zone

of tip

• Secure fit and simple ejection

- Quick and simple volume check
   Graduation marks on tip
- Precise pipetting without loss of sample
   Conical tip outlet prevents drop formation at the outlet opening of tip
- Elimination of risk of sample contamination
   Tips manufactured from autoclavable, non-wettable, virgin polypropylene
- Maintain sample integrity Available as sterilized version (by beta irradiation)
- Available in bags or rackboxes

DIN Standard 12600

WHO Technical Report Series 908, 37. Report, Geneva2003

General requirements CE-marking certificate

Sterility certificate RoHS Compliance certificate Environmental Management certificate USP-Plastic Test, Class VI, certificate Conformity testing certificate GMP/GLP certificate



### Features

# **Top-Line<sup>®</sup> Tips**

Innovation for Science

Тір	Tip Lengt
Comparison of the local distance of the loca	34.1 mr
0.1-10 μl, clear Top-Line <sup>®</sup> Tip	
	45.2 mr
0.1-10 μl XL, clear Top-Line <sup>®</sup> Tip	
	45.7 mr
0.5-10/20 μl, clear Top-Line <sup>®</sup> Tip	
	50.8 mr
1-200 μl, clear Top-Line <sup>®</sup> Tip	
	50.8 mr
1-200 μl, yellow Top-Line <sup>®</sup> Eco-Line <sup>®**</sup> Τ	-
	67.0 mi
1-200 μl, clear Top-Line <sup>®</sup> Gelloader Tip	
	55.0 mr
5-300 μl, clear Top-Line <sup>®</sup> Tip	55.0 mr
5-300 μl, clear Top-Line <sup>®</sup> Tip	55.0 mi
5-300 μl, clear Top-Line <sup>®</sup> Tip 100-1000 μl, short, clear blue Top-Line <sup>®</sup>	70.1 m
	70.1 m
	70.1 mi 70.1 mi



### **Specifications | Order Information**

Cat. No.	Pack Type	Sterilized	Sales Unit
1-000-60-0	Bag	:	2x1000
1-000-81-0	Bag		20x1000
1-000-96-0	96-Rack		10x96
1-001-60-0	Bag		2x1000
1-001-96-0	96-Rack		10x96
1-060-60-0	Bag	:	2x1000
1-060-81-0	Bag		20x1000
1-060-96-0	96-Rack		10x96
1-061-60-0	Bag		2x1000
1-061-96-0	96-Rack		10x96
1-050-60-0	Bag	:	2x1000
1-050-81-0	Bag		20x1000
1-050-96-0	96-Rack		10x96
1-051-60-0	Bag		2x1000
1-051-96-0	96-Rack		10x96
1-052-96-0***	96-Rack		10x96
1-110-60-0	Bag	:	2x1000
1-110-81-0	Bag		20x1000
1-110-96-0	96-Rack		10x96
1-111-60-0	Bag		2x1000
1-111-96-0	96-Rack		10x96
1-110-60-1	Bag		2x1000
1-110-81-1	Bag		20x1000
1-110-96-1	96-Rack		10x96
1-100-81-1**	Bag		35x1000
1-130-50-0	Bag	:	1x1000
1-130-96-0	96-Rack		10x96
1-131-50-0	Bag		1x1000
1-131-96-0	96-Rack		10x96
1-103-60-0	Bag	:	2x1000
1-103-81-0	Bag		20x1000
1-103-96-0	96-Rack		10x96
1-104-60-0	Bag		2x1000
1-104-96-0	96-Rack		10x96
1-207-06-2	60-Rack	:	10x60
1-207-50-2	Bag		1x1000
1-209-06-2	60-Rack		10x60
1-209-50-2	Bag		1x1000
1-209-80-2	Bag		10x1000
1-200-50-0	Bag	:	2x500
1-200-80-0	Bag		20x500
1-200-96-0	96-Rack		10x96
1-201-50-0	Bag		2x500
1-201-96-0	96-Rack		10x96
1-200-50-2	Bag		2x500
1-200-80-2	Bag		20x500
1-200-96-2	96-Rack		10x96
1-210-80-2**	Bag		20x500



T**ips** Specifications | Order Informatior

> nformation correct at time of printing. \*\*\* different tip design

# **Macro-Line® Tips**

### Innovation for Science

Тір	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
	126.0 mm				
			Contractor of the local division of the loca		
1-5 ml, clear blue Macro-Line <sup>®</sup> Tip		1-211-84-0 1-215-84-0	Bag Bag		8x250 8x250
	126.0 mm				
			1000 ( 1000) ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1000 ( 1		
1-5 ml, clear Macro-Line <sup>®</sup> Tip		1-210-84-0 1-214-84-0	Bag Bag		8x250 8x250
	147.5 mm				
1-5,5 ml, clear Macro-Line <sup>®</sup> Tip		1-212-84-0 1-216-84-0	Bag Bag		8x250 8x250
	150.0 mm				
1-10 ml, clear Macro-Line <sup>®</sup> Tip		1-213-50-0 1-217-50-0	Bag Bag	1.1	10x100 10x100

**Specifications | Order Information** 

**Top-Line®** Filter Tips

Innovation for Science



- Secure fit and simple ejection • of tip Optimized cone geometry with wide sealing zone Quick and simple volume check Graduation marks on tip Precise pipetting without loss of sample
- Conical tip outlet prevents drop formation at the outlet opening of tip
- Elimination of risk of sample contamination Tips manufactured from autoclavable, non-wettable, virgin polypropylene
- Maintain sample integrity Available as sterilized version (by beta irradiation)
- Available in bags or rackboxes



General requirements CE-marking certificate

Sterility certificate RoHS Compliance certificate Environmental Management certificate USP-Plastic Test, Class VI, certificate Conformity testing certificate GMP/GLP certificate

ISO Standard 8655

#### **Features**





# **Top-Line®** Filter Tips

Specif

Pack Type Sterilized

Innovation for Science

**Filter Tip** 

Filter Tips Specifications | Order Inform

Street or other Designation of the local division of the local div

ifications	Order Information	

Sales Unit

5 x 1000

5 x 1000

10 x 96

10 x 96

5 x1000 10x96 5 x1000 10x96

5 x 1000 10 x 96 5 x 1000 10 x 96

5 x 1000 10 x 96 5 x 1000 10 x 96

5 x 1000 10 x 96 5 x 1000 10 x 96

5 x 1000 10 x 96 5 x 1000 10 x 96

> 10 x 96 10 x 96

> 10 x 96

10 x 96

**Top-Line<sup>®</sup> Filter Tips** 

Innovation for Science

Filter Tip	Tip Length	Cat. No.	Pack Type	Sterilized	Sales Unit
5-300 μl, clear Top-Line <sup>®</sup> Filter Tip	55.0 mm	2-115-70-0 2-115-96-0 2-125-70-0 2-125-96-0	Bag 96-Rack Bag 96-Rack	:	5 x 1000 10 x 96 5 x 1000 10 x 96
100-1000 μl, short, clear blue Top-Line <sup>®</sup> F	70.1 mm	2-209-06-2 2-209-70-2 2-210-06-2 2-210-70-2	60-Rack Bag 60-Rack Bag	- 1	10 x 60 10 x 500 10 x 60 10 x 500
100-1000 μl, long, clear Top-Line <sup>®</sup> Filter T	86.0 mm ïp	2-201-70-0 2-201-96-0 2-211-70-0 2-211-96-0	Bag 96-Rack Bag 96-Rack	- 1	10 x 500 10 x 96 10 x 500 10 x 96

0.1-10 μl, clear Top-Line <sup>®</sup> Filter Tip		2-000-96-0 2-001-70-0 2-001-96-0	96-Rack Bag 96-Rack	:	
0.1-10 μl XL, clear Top-Line <sup>®</sup> Filter Tip	45.2 mm	2-060-70-0 2-060-96-0 2-061-70-0 2-061-96-0	Bag 96-Rack Bag 96-Rack	:	
0.5-10 μl, cristal Top-Line <sup>®</sup> Filter Tip	45.7 mm	2-050-70-0 2-050-96-0 2-051-70-0 2-051-96-0 2-052-96-0**	Bag 96-Rack Bag 96-Rack 96-Rack	÷	
0.5-20 μl, cristal Top-Line <sup>®</sup> Filter Tip	45.7 mm	2-053-70-0 2-053-96-0	Bag 96-Rack	:	
1-20 μl, clear Top-Line <sup>®</sup> Filter Tip	50.8 mm	2-114-70-0 2-114-96-0 2-124-70-0 2-124-96-0	Bag 96-Rack Bag 96-Rack	:	
1-30 μl, clear Top-Line <sup>®</sup> Filter Tip	50.8 mm	2-116-70-0 2-116-96-0 2-126-70-0 2-126-96-0	Bag 96-Rack Bag 96-Rack	:	
1-50 μl, clear Top-Line <sup>®</sup> Filter Tip	50.8 mm	2-111-70-0 2-111-96-0 2-121-70-0 2-121-96-0	Bag 96-Rack Bag 96-Rack	:	
1-100 μl, clear Top-Line <sup>®</sup> Filter Tip	50.8 mm	2-112-70-0 2-112-96-0 2-122-70-0 2-122-96-0	Bag 96-Rack Bag 96-Rack	:	
1-200 μl, clear Top-Line <sup>®</sup> Filter Tip	50.8 mm	2-113-70-0 2-113-96-0 2-123-70-0 2-123-96-0	Bag 96-Rack Bag 96-Rack	:	
30 μl, clear Top-Line <sup>®</sup> Gelloader Filter Tip	67.0 mm	2-130-96-0 2-131-96-0	96-Rack 96-Rack	•	
	67.0 mm	2-132-96-0	96-Rack		

Tip

Length

34.1 mm

Cat. No.

2-000-70-0

2-000-96-0

Bag

96-Rack

96-Rack

2-133-96-0

#### 100 µl, clear Top-Line<sup>®</sup> Gelloader Filter Tip



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### **Specifications | Order Information**



Filter Tips Specifications | Order Information

# **Premium-Line**<sup>®</sup> Tips | Filter Tips

### Low Retention

CERTIFIED

Secure fit and simple ejection

Optimized cone geometry with

wide sealing zone

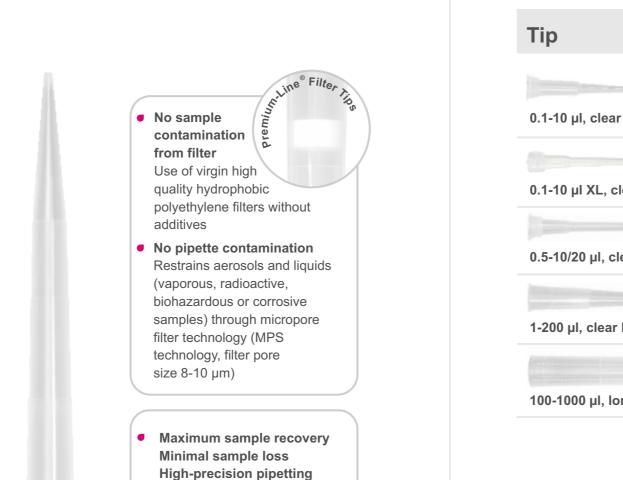
CE IVD

netal-free

of tip

check

of tip



Innovative Low Retention

surface

**Features** 

Graduation marks on tip Precise pipetting without loss of sample Conical tip outlet prevents drop formation at the outlet opening

• Quick and simple volume

- Elimination of risk of sample contamination Tips manufactured from autoclavable, non-wettable, virgin polypropylene
- Maintain sample integrity Available as sterilized version (by beta irradiation)
- Available in bags or rackboxes

#### Specifications Premium-Line<sup>®</sup> Tips | Filter Tips:

General requirements CE-marking certificate

> Sterility certificate RoHS Compliance certificate Environmental Management certificate USP-Plastic Test, Class VI, certificate Conformity testing certificate GMP/GLP certificate

ISO Standard 8655 EU-Directive 98/79/EG, competent authority code DE/CA90 EN 552/ISO 11137 and DIN EN 556 EU Directive 2002/95/EC ISO Standard 14000 and ISO Standard 14001 ISO Standard 10993 DIN Standard 12600 WHO Technical Report Series 908, 37. Report, Geneva2003

## **Premium-Line**<sup>®</sup> Tips Low Retention

Tip Length 34.1 mm 0.1-10 µl, clear Premium-Line<sup>®</sup> Tip 45.2 mm 0.1-10 µl XL, clear Premium-Line<sup>®</sup> Tip 45.7 mm 0.5-10/20 µl, clear Premium-Line<sup>®</sup> Tip 50.8 mm 1-200 µl, clear Premium-Line<sup>®</sup> Tip 86.0 mm

100-1000 µl, long, clear Premium-Line® Tip



### **Specifications | Order Information**

Cat. No.	Pack Type	Sterilized	Sales Unit
4-000-60-0	Bag	:	2x1000
4-000-81-0	Bag		20x1000
4-000-96-0	96-Rack		10x96
4-001-60-0	Bag		2x1000
4-001-96-0	96-Rack		10x96
4-060-60-0	Bag	:	2x1000
4-060-81-0	Bag		20x1000
4-060-96-0	96-Rack		10x96
4-061-60-0	Bag		2x1000
4-061-96-0	96-Rack		10x96
4-050-60-0	Bag	:	2x1000
4-050-81-0	Bag		20x1000
4-050-96-0	96-Rack		10x96
4-051-60-0	Bag		2x1000
4-051-96-0	96-Rack		10x96
4-110-60-0	Bag	:	2x1000
4-110-81-0	Bag		20x1000
4-110-96-0	96-Rack		10x96
4-111-60-0	Bag		2x1000
4-111-96-0	96-Rack		10x96
4-200-50-0	Bag	:	2x500
4-200-80-0	Bag		20x500
4-200-96-0	96-Rack		10x96
4-201-50-0	Bag		2x500
4-201-96-0	96-Rack		10x96

Low Retention Tips Specifications | Order Informat

CERTIFIED



# **Premium-Line<sup>®</sup> Filter Tips** Specifications | Order Information Low Retention

Cat. No.

Pack Type Sterilized

Sales Unit

Tip

Length

## Rackbox-System Features | Specifications | Order Information

#### autoclavable 121° C | 15 min 78 FREE PCR marge







Small Rackbo



Rackbox	Colour	Cat. No.	Pack Type	Sterilized	Sales Unit
0.1 - 20 μl, 8x12	clear Box black Rack	4-500-00-0	Carton		1x10
200 µl, 8x12	clear Box black Rack	4-500-01-0	Carton		1x10
300 µl, 8x12	clear Box black Rack	4-501-00-0	Carton		1x10
1000 μl, long, 8x12	clear Box black Rack	4-502-00-0	Carton		1x10
1000 µl, short 6x10	clear Box black Rack	4-503-00-0	Carton		1x10

0.1-10 μl, clear Premium-Line <sup>®</sup> Filter Tip	34.1 mm	5-001-70-0 5-001-96-0	Bag 96-Rack	:	5 x 1000 10 x 96
	45.2 mm	5-061-70-0	Bag		5 x1000
		5-061-96-0	96-Rack	- T.	10x96
0.1-10 μl XL, clear Premium-Line <sup>®</sup> Filter T	ір				
	45.7 mm	5-051-70-0 5-051-96-0	Bag 96-Rack	1.1	5 x 1000 10 x 96
0.5-20 μl, cristal Premium-Line <sup>®</sup> Filter Tip			_		
and the second se	50.8 mm	5-114-70-0 5-114-96-0	Bag 96-Rack	- 1 - I	5 x 1000 10 x 96
1-20 μl, clear Premium-Line <sup>®</sup> Filter Tip					
	50.8 mm	5-116-70-0 5-116-96-0	Bag 96-Rack	1.1	5 x 1000 10 x 96
1-30 μl, clear Premium-Line <sup>®</sup> Filter Tip			_		
And the second s	50.8 mm	5-111-70-0 5-111-96-0	Bag 96-Rack	- 1 - I	5 x 1000 10 x 96
1-50 μl, clear Premium-Line <sup>®</sup> Filter Tip	50.0		Des		
The second	50.8 mm	5-112-70-0 5-112-96-0	Bag 96-Rack	- 1 - I	5 x 1000 10 x 96
1-100 µl, clear Premium-Line <sup>®</sup> Filter Tip			_		
And	50.8 mm	5-113-70-0 5-113-96-0	Bag 96-Rack	- 1 - I	5 x 1000 10 x 96
1-200 μl, clear Premium-Line <sup>®</sup> Filter Tip					
	86.0 mm	5-201-70-0 5-201-96-0	Bag 96-Rack	1.1	10 x 500 10 x 96
100-1000 μl, long, clear Premium-Line <sup>®</sup> Fi	ilter Tip				

**Filter Tip** 

13

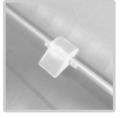


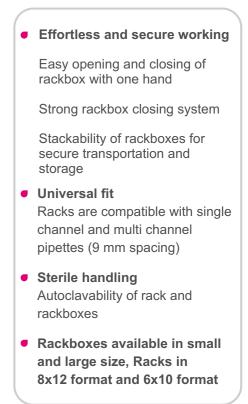












# PIPETTES

Liquid Handling







# pipet4u<sup>®</sup> Performance

**High Performance Manual Pipettes** 



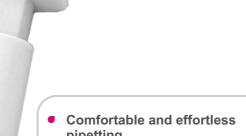
### Accurate and reliable pipetting

Reverse pipetting option for accurate and precise aspirating and dispensing of viscous liquids

Innovative soft grip prevents transfer of heat to internal components ensuring accurate pipette operation

Lock counter mechanism<sup>2</sup> prevents volume changes





**Pipet4u**® Performance

20 - 200 µl

20

pipetting

**Features** 

Light weight pipette design

Ergonomic design for easy operation

Ergonomic grip shape

Ergonomic pipetting button for easy volume setting and low strain pipetting (minimizes RSI<sup>1</sup>)

- Sterile handling Fully autoclavable pipette
- Easy and quick maintenance and adjustment With the included tool
- No loss of samples Blow out system allows last drop dispensing

### pipet4u<sup>®</sup> Performance Specifications | Order Information Single Channel fixed Volume Manual Pipettes

Volume Range	Test Volume	Increments	Inaccuracy*	Imprecision**	Cat. No.
5 μΙ	5 µl	-	1.3 %	1.1 %	8-001-00-9
10 µl	10 µl	-	0.8 %	0.6 %	8-002-00-9
20 µl	20 µl	-	0.6 %	0.3 %	8-003-00-9
25 µl	25 µl	-	0.6 %	0.3 %	8-004-00-9
50 μl	50 µl	-	0.6 %	0.3 %	8-007-00-9
100 µl	100 µl	-	0.5 %	0.2 %	8-008-00-9
200 µl	200 µl	-	0.5 %	0.2 %	8-009-00-9
250 µl	250 µl	-	0.5 %	0.2 %	8-010-00-9
500 μl	500 µl	-	0.5 %	0.2 %	8-011-00-9
1000 µl	1000 µl	-	0.5 %	0.2 %	8-012-00-9
2000 µl	2000 µl	-	0.5 %	0.2 %	8-013-00-9
2500 µl	2500 µl	-	0.5 %	0.2 %	8-014-00-9
5000 µl	5000 µl	-	0.5 %	0.2 %	8-015-00-9
10000 µl <sup>***</sup>	10000 µl	-	0.4 %	0.2 %	8-016-00-9

\* Systematic error \*\* Random error \*\*\* Tip ejector function not available

	pipet4u <sup>®</sup>	Performance	Manual Pipett	es meet the	following	international	standards:
--	----------------------	-------------	---------------	-------------	-----------	---------------	------------

International Organisation for Standardisation	ISO 865
European Committee for Standardisation	CEN EN
German Institute for Standardisation	DIN 126
Electrical and general safety in accordance with	IEC 610
Electromagnetic compatibility in accordance with	IEC 613
Marking and layout in accordance with	IEC 600
Conformity testing in accordance with	DIN 126
CE-Sign marked in accordance with	EU Direc

RSI - Repetitive Strain Injury <sup>2</sup> Equipment of variable Volume Manual Pipettes

17

Ľ.	<ul> <li>Tool for calibration and disassembling</li> </ul>
Included Accessorie:	<ul> <li>O-rings (for 5000 µl   10000 µl pipette)</li> </ul>
ece	<ul> <li>Sample bag with tips</li> </ul>
Αþ	• Grease
nde	<ul> <li>Calibration report</li> </ul>
	<ul> <li>Instruction manual</li> </ul>
_	

655, part 1-6 EN ISO 8655 2650 1010-1 326-1 0073 006 ective 98/78 EG, Art. 10



CE IVD

# pipet4u<sup>®</sup> Performance

### Specifications | Order Information

Single Channel variable Volume Manual Pipettes

Volume Range	Test Volume	Increments	Inaccuracy <sup>*</sup>	Imprecision**	Cat. No.
0.1 - 2.5 μl	0.25 μl 1.25 μl 2.5 μl	0.01 µl	12.0 % 3.0 % 2.5 %	6.0 % 3.0 % 2.0 %	8-100-00-9
0.5 - 10 µl	1 μl 5 μl 10 μl	0.1 µl	2.5 % 1.5 % 1.0 %	1.5 % 0.8 % 0.4 %	8-101-00-9
2 - 20 µl	2 μl 10 μl 20 μl	0.5 µl	2.5 % 1.2 % 1.0 %	1.5 % 0.6 % 0.3 %	8-102-00-9
5 - 50 µl	5 μl 25 μl 50 μl	0.5 µl	2.0 % 1.2 % 1.0 %	1.5 % 0.8 % 0.3 %	8-103-00-9
10 - 100 µl	10 μl 50 μl 100 μl	0.5 µl	2.0 % 1.0 % 0.8 %	1.5 % 0.3 % 0.2 %	8-104-00-9
20 - 200 µl	20 μl 100 μl 200 μl	1.0 µl	2.5 % 1.0 % 0.6 %	0.7 % 0.3 % 0.2 %	8-105-00-9
50 - 200 μl	50 μl 100 μl 200 μl	1.0 µl	1.0 % 1.0 % 0.6 %	0.4 % 0.3 % 0.2 %	8-105-01-9
100 - 1000 µl	100 μl 500 μl 1000 μl	5.0 µl	2.0 % 0.9 % 0.6 %	0.6 % 0.2 % 0.2 %	8-106-00-9
200 - 1000 µl	200 μl 500 μl 1000 μl	5.0 µl	0.9 % 0.9 % 0.6 %	0.3 % 0.2 % 0.2 %	8-106-01-9
500 - 5000 μl	500 μl 2500 μl 5000 μl	50.0 µl	1.9 % 1.0 % 0.6 %	0.7 % 0.5 % 0.3 %	8-107-00-9
2000 - 10000 µl <sup>***</sup>	2000 μl 5000 μl 10000 μl	100.0 µl	3.0 % 1.2 % 0.6 %	0.6 % 0.3 % 0.2 %	8-108-00-9

# pipet4u<sup>®</sup> Performance Specifications | Order Information Multi Channel variable Volume Manual Pipettes

Volume Range	9	Test Volume	Increments	Inaccuracy <sup>*</sup>	Imprecision**	Cat. No.
0.5 - 10 µl	8 Channel	0.50 µl 5 µl 10 µl	0.1 µl	2.0 % 1.6 % 1.5 %	2.0 % 1.6 % 1.5 %	8-201-00-9
5 - 50 µl	8 Channel	5 μl 25 μl 50 μl	0.5 µl	2.0 % 1.0 % 0.6 %	2.0 % 0.8 % 0.5 %	8-202-00-9
30 - 300 µl	8 Channel	30 μl 150 μl 300 μl	1.0 µl	2.5 % 1.2 % 0.6 %	0.9 % 0.5 % 0.4 %	8-203-00-9
0.5 - 10 µl	12 Channel	1 μl 5 μl 10 μl	0.1 µl	4.0 % 2.5 % 1.5 %	4.0 % 2.5 % 1.5 %	8-401-00-9
5 - 50 µl	12 Channel	5 μl 25 μl 50 μl	0.5 µl	3.0 % 1.5 % 1.0 %	2.0 % 1.0 % 0.7 %	8-402-00-9
30 - 300 µl	12 Channel	30 μl 150 μl 300 μl	1.0 µl	1.5 % 1.0 % 0.8 %	0.75 % 0.5 % 0.25 %	8-403-00-9

\* Systematic error \*\* Random error

\* Systematic error \*\* Random error \*\*\* Tip ejector function not available



#### pipet4u<sup>®</sup> Performance Manual Pipettes meet the following international standards:

International Organisation for Standardisation
European Committee for Standardisation
German Institute for Standardisation
Electrical and general safety in accordance with
Electromagnetic compatibility in accordance with
Marking and layout in accordance with
Conformity testing in accordance with
CE-Sign marked in accordance with

ISO 8655, part 1-6 CEN EN ISO 8655 DIN 12650 IEC 61010-1 IEC 61326-1 IEC 60073 DIN 12600 EU Directive 98/78 EG, Art. 10



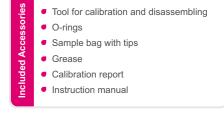
**AVAILABLE** SOON pipet4u<sup>®</sup> Performance 12 Channel Pipettes

#### pipet4u® Performance Manual Pipettes meet the following international standards:

International Organisation for Standardisation	ISO 865
European Committee for Standardisation	CEN EN
German Institute for Standardisation	DIN 126
Electrical and general safety in accordance with	IEC 610
Electromagnetic compatibility in accordance with	IEC 613
Marking and layout in accordance with	IEC 600
Conformity testing in accordance with	DIN 126
CE-Sign marked in accordance with	EU Direc

Manual Pipettes Specifications | Order Information

19



655, part 1-6 EN ISO 8655 2650 1010-1 1326-1 0073 2600 ective 98/78 EG, Art. 10



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# pipet4u<sup>®</sup> Revolution

**High Performance Electronic Pipettes** 

**Dipet4u**® Revolution

a 10-200 µl

**Features** 

# pipet4u<sup>®</sup> Revolution

Single | Multi Channel variable Volume Electronic Pipettes

Volume Range	Test Volume	Increments	Inaccuracy*	Imprecision**	Cat. No.
0.2 - 10 μl	0.50 µl 5 µl 10 µl	0.01 µl	5.0 % 2.5 % 0.9 %	3.0 % 1.5 % 0.5 %	8-500-00-0
5 - 100 µl	5 μl 50 μl 100 μl	0.1 µl	2.5 % 0.9 % 0.4 %	1.5 % 0.3 % 0.5 %	8-501-00-0
10 - 200 μl	10 μΙ 100 μΙ 200 μΙ	0.1 µl	0.9 % 0.4 % 0.3 %	0.5 % 0.5 % 0.1 %	8-502-00-0
50 - 1000 µl	100 μl 500 μl 1000 μl	1.0 µl	0.4 % 0.4 % 0.3 %	0.5 % 0.2 % 0.1 %	8-503-00-0
100 - 5000 μl	500 μl 2500 μl 5000 μl	5.0 µl	0.4 % 0.1 % 0.1 %	0.5 % 0.1 % 0.1 %	8-505-00-0
0.2 - 10 µl 8 Channel	0.5 μl 5 μl 10 μl	0.01 µl	5.0 % 2.5 % 0.9 %	3.0 % 1.5 % 0.5 %	8-520-00-0
2.5 - 50 µl 8 Channel	5 μl 25 μl 50 μl	0.10 µl	2.5 % 0.9 % 0.4 %	1.5 % 0.3 % 0.5 %	8-521-00-0
15 - 300 µl 8 Channel	20 μl 150 μl 300 μl	0.50 µl	0.9 % 0.4 % 0.3 %	0.5 % 0.3 % 0.1 %	8-522-00-0
0.2 - 10 µl 12 Channel	0.5 μl 5 μl 10 μl	0.01 µl	5.0 % 2.5 % 0.9 %	3.0 % 1.5 % 0.5 %	8-530-00-0
<b>2.5 - 50 μl</b> 12 Channel	5 μl 25 μl 50 μl	0.10 µl	2.5 % 0.9 % 0.4 %	1.5 % 0.3 % 0.5 %	8-531-00-0
<b>15 - 300 µl</b> 12 Channel	20 μΙ 150 μΙ 300 μΙ	0.50 µl	0.9 % 0.4 % 0.3 %	0.5 % 0.3 % 0.1 %	8-532-00-0

\* Systematic error \*\* Random error

**AVAILABLE** SOON pipet4u<sup>®</sup> Revolution ctronic Multi Channe Pipett

#### pipet4u<sup>®</sup> Revolution Electronic Pipettes meet the following international standards:

International Organisation for Standardisation	ISO 8655, part 1-6
European Committee for Standardisation	CEN EN ISO 8655
German Institute for Standardisation	DIN 12650
Electrical and general safety in accordance with	IEC 61010-1
Electromagnetic compatibility in accordance with	IEC 61326-1
Marking and layout in accordance with	IEC 60073
Conformity testing in accordance with	DIN 12600
CE-Sign marked in accordance with	EU Directive 98/78 EG, Art. 10



2 YEAR

Comfortable and effortless pipetting

Ultra bright OLED display for extra clear visibility

Ergonomic grip shape

© 2013-2014 AHN Biotechnologie GmbH

Ergonomic design for easy operation

Ergonomic pipetting button for easy operation setting and low strain pipetting (minimizes RSI<sup>3</sup>)

Easy handling with one button Control of all operating programs with the patented 1 button system

- 6 different operating programs: Pipetting Mode **Dispensing Mode** Reverse Pipetting Mode Mixing Mode Auto Calibration Mode Speed Control
- Accurate and reliable pipetting SCS-System<sup>2</sup> controls piston movement for highest precision and accuracy
- Easy self-calibration of pipette ESM-System<sup>1</sup> allows user calibration of pipette, e.g. when using different sample viscosities



ESM-System - Easy Selfcalibration Management Sytem It is a selfcalibration system where the user can calibrate his pipette for solutions of different viscosity The system also controls permanently all functions and indicates all errors. SCS-System - Speed Control System

3 RSI - Repetitive Strain Injury

Electronic Pipettes Features

# **Specifications | Order Information**

Ś	<ul> <li>Battery (Li-Ion-battery)</li> </ul>
orie	<ul> <li>Screw driver</li> </ul>
SS(	<ul> <li>Screw for hand grip</li> </ul>
22	<ul> <li>Charger (available with EU   UK   US Charger)</li> </ul>
Included Accessories	<ul> <li>Sample bag with tips</li> </ul>
dec	<ul> <li>Grease</li> </ul>
clu	<ul> <li>Calibration report</li> </ul>
	<ul> <li>Instruction manual</li> </ul>

55, part 1-6 N ISO 8655 650 010-1 326-1 073 600

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# pipet4u<sup>®</sup>Oasis

### **Pipette Controller**



### **Features**

# pipet4u<sup>®</sup>Oasis

**Pipette Controller** 

Volume Range	Description
0.1 - 100 ml	pipet4u <sup>®</sup> Oasis Pipette Contro

### Spare Parts pipet4u® Oasis Pipette Controller

Pore Size	Description	Sales Unit	Cat. No.
0.20 μm	pipet4u <sup>®</sup> Oasis PTFE membrane filters	Carton/5 filters	8-300-03-0
0.45 µm	pipet4u <sup>®</sup> Oasis PTFE membrane filters	Carton/5 filters	8-300-04-0
	pipet4u <sup>®</sup> Oasis silicone adapter	Carton/1 adapter	8-300-01-0
	pipet4u <sup>®</sup> Oasis pipette cone	Carton/1 cone	8-300-02-8

### **Specifications | Order Information**

	Sales Unit	Cat. No.
oller	Carton/1 Oasis	8-300-00-9
	Charger	stand unt bracket E membrane filter





# pipet4u<sup>®</sup> Accessoires

### Specifications | Order Information

for Single Channel and Multi Channel Manual Pipettes

Stand	Description	Sales Unit	Cat. No.
Story	pipet4u <sup>®</sup> single rack for 8 channel pipette, black	Carton/1 rack	8-130-02-7
	pipet4u <sup>®</sup> single rack for 8 channel pipette, white	Carton/1 rack	8-130-02-9
u redit.	pipet4u <sup>®</sup> rack for 4 single channel pipettes, white	Carton/1 rack	8-130-00-9
Perdey	pipet4u <sup>®</sup> rack for 6 single channel pipettes, white	Carton/1 rack	8-131-00-9

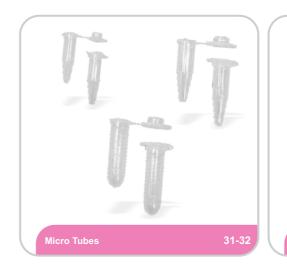
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### Liquid Handling

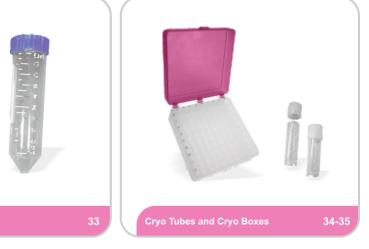


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# **PCR** Tubes

#### CE IVD CERTIFIED FREE metal-free

Cycle time reduction and optimal heat transfer

Guaranteed by extra thin, uniform wall thickness of tube

Available with flat and domed cap

Effortless and secure working Ergonomic cap design for easy and secure opening and closing of tube with one hand

**Features** 

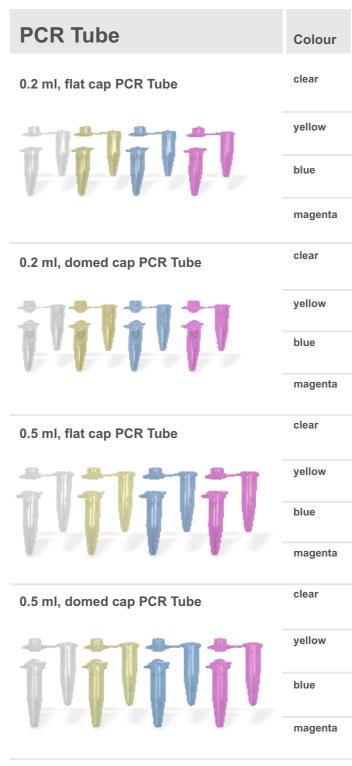
• Elimination of risk of sample contamination and loss of sample High quality raw material

(polymer) meets standards of purity and is highly resistant to extreme mechanical strain and demonstrates excellent chemical resistance

- Maintain sample integrity Available as sterilized version (by beta irradiation)
- Optical measurement and control Highly transparent tube
- Sterile handling Fully autoclavable tube

# **PCR Tubes**

0.2 ml | 0.5 ml flat and domed cap



### **Specifications | Order Information**

Cat. No.	Pack Type	Sterilized	Sales Unit
3-010-50-0	Bag		1 x 1000
3-010-80-0	Bag		10 x 1000
3-011-50-0	Bag		1 x 1000
3-010-50-1	Bag		1 x 1000
3-010-80-1	Bag		10 x 1000
3-010-50-2	Bag		1 x 1000
3-010-80-2	Bag		10 x 1000
3-010-50-8	Bag		1 x 1000
3-010-80-8	Bag		10 x 1000
3-020-50-0	Bag	1.1	1 x 1000
3-020-80-0	Bag		10 x 1000
3-021-50-0	Bag		1 x 1000
3-020-50-1	Bag		1 x 1000
3-020-80-1	Bag		10 x 1000
3-020-50-2	Bag		1 x 1000
3-020-80-2	Bag		10 x 1000
3-020-50-8	Bag		1 x 1000
3-020-80-8	Bag		10 x 1000
3-110-50-0	Bag		1 x 1000
3-110-80-0	Bag		10 x 1000
3-111-50-0	Bag		1 x 1000
3-110-50-1	Bag		1 x 1000
3-110-80-1	Bag		10 x 1000
3-110-50-2	Bag		1 x 1000
3-110-80-2	Bag		10 x 1000
3-110-50-8	Bag		1 x 1000
3-110-80-8	Bag		10 x 1000
3-120-50-0	Bag	1.1	1 x 1000
3-120-80-0	Bag		10 x 1000
3-121-50-0	Bag		1 x 1000
3-120-50-1	Bag		1 x 1000
3-120-80-1	Bag		10 x 1000
3-120-50-2	Bag		1 x 1000
3-120-80-2	Bag		10 x 1000
3-120-50-8	Bag		1 x 1000
3-120-80-8	Bag		10 x 1000





# **Micro Tubes**

CERTIFIED

FREE

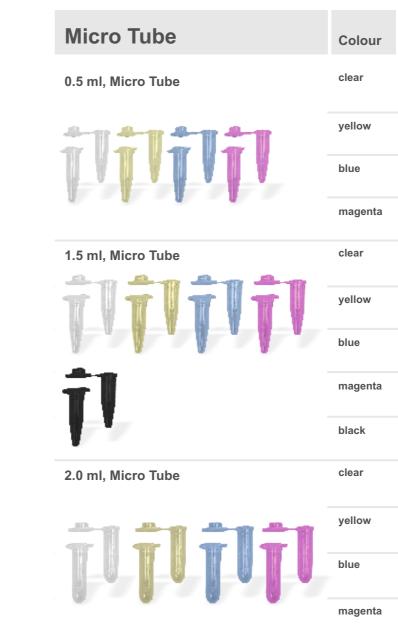
CE IVD

metal-free

#### **Features**

# **Micro Tubes**

0.5 ml | 1.5 ml | 2.0 ml



#### No loss of sample Tube has been developed to resists high centrifugal force, temperature variations and chemicals

Centrifuge specifications: up to 25.000 x g - fixed-angle rotor up to 70.000 x g - swing out rotor

- Maintain sample integrity Available as sterilized version (by beta irradiation)
- Sterile handling Fully autoclavable tube

- Effortless and secure working Ergonomic cap design for easy and secure opening and closing of tube with one hand
- Easy sample identification Frosted tube cap and surface on body of tube for labeling option
- Quick and simple volume check Graduation marks on tube (1.5 ml and 2.0 ml)

**Micro Tubes** Features



### **Specifications | Order Information**

Cat. No.	Pack Type	Sterilized	Sales Unit
3-115-50-0	Bag		1 x 1000
3-115-80-0	Bag		10 x 1000
3-116-50-0	Bag		1 x 1000
3-115-50-1	Bag		1 x 1000
3-115-80-1	Bag		10 x 1000
3-115-50-2	Bag		1 x 1000
3-115-80-2	Bag		10 x 1000
3-115-50-8	Bag		1 x 1000
3-115-80-8	Bag		10 x 1000
3-205-50-0	Bag		1 x 1000
3-205-85-0	Bag		8 x 1000
3-207-50-0	Bag		1 x 1000
3-205-50-1	Bag		1 x 1000
3-205-85-1	Bag		8 x 1000
3-205-50-2	Bag		1 x 1000
3-205-85-2	Bag		8 x 1000
3-205-50-8	Bag		1 x 1000
3-205-85-8	Bag		8 x 1000
3-205-50-7	Bag		1 x 1000
3-205-85-7	Bag		8 x 1000
3-204-50-0	Bag		1 x 1000
3-204-85-0	Bag		8 x 1000
3-208-50-0	Bag		1 x 1000
3-204-50-1	Bag		1 x 1000
3-204-85-1	Bag		8 x 1000
3-204-50-2	Bag		1 x 1000
3-204-85-2	Bag		8 x 1000
3-204-50-8	Bag		1 x 1000
3-204-85-8	Bag		8 x 1000





# Centrifuge Tubes Features | Specifications | Order Information



- Conical bottom design with screw cap
- Easy sample identification Large writing surface on tube
- Quick and simple volume check Graduation marks on tube
- No loss of sample Tube has been developed to resists high centrifugal force and temperature variations

Centrifuge specifications: up to 12.000 x g - 15 ml Centrifuge Tube up to 9.500 x g - 50 ml Centrifuge Tube

- Secure long term storage and preservation Safe usage in a temperature range from - 80 °C to + 121 °C
- Sterile handling Fully autoclavable tube



Centrifuge Tube	Tube Hight	Cat. No.	Pack Type	Sterilized	Sales Unit
15 ml, Centrifuge Tube, clear, blue screw cap	121.0 mm	3-252-25-0	Bag		1x25
50 ml, Centrifuge Tube, clear, blue screw cap	118.0 mm	3-253-25-0	Bag		1x25

# **Cryo Tubes**

1.8 ml

CERTIFIED FREE Easy sample identification Unique barcode printing directly on tube Large writing surface on tube • Secure long term storage and preservation Tube can be stored to -196 °C No loss of sample Tested to specific pressure to guarantee no leaking from tube Tube **Cryo Tube** Hight

1.8 ml, Cryo Tube, clear 44.5 mm

self stand external thread barcode



Centrifuge Tubes Features | Specifications | Order Infor

#### © 2013-2014 AHN Biotechnologie GmbH

### Features | Specifications | Order Information



Cat. No.	Pack Type	Sterilized	Sales Unit
3-251-49-0	Bag	:	10 x 50
3-251-10-0	Bag		2 x 50

Cat. No.	Pack Type	Sterilized	Sales Unit
3-252-10-0 3-252-50-0 3-252-10-1 3-252-50-1 3-252-10-2 3-252-50-2 3-252-10-3 3-252-50-3 3-252-50-3	Bag Bag Bag Bag Bag Bag Bag Bag Bag		1 x 100 1 x 1000 1 x 1000
3-252-50-4 3-252-10-8 3-252-50-8	Bag Bag Bag		1 x 1000 1 x 100 1 x 1000

### Features | Specifications | Order Information

### 81-place

Cryo Box

 Effortless and secure working

> Easy opening and closing of box with one hand

Protection of the samples

 Secure long term storage and preservation
 Box can be stored between
 -130 °C and + 130 °C

- Secure transportation and storage Stackability of box
- Universal fit Suitable for all standard Cryo Tubes
- Sterile handling Autoclavable box
- Storage of light sensitive samples Available with bottom and lid in black



Cryo Box	Colour	Cat. No.	Pack Type	Sterilized	Sales Unit
81-place Cryo- and Storage Box	black	3-630-05-7	Bag		Bag/ 5 Boxes
external dimensions: 140 mm (W) x 140 mm (D) x 60 mm (H) 9 x 9 matrix, alphanumeric code light protection		3-630-99-7	Bag		Bag/ 40 Boxes
81-place Cryo- and Storage Box	magenta	3-630-05-8	Bag		Bag/ 5 Boxes
external dimensions: 140 x 140 x 60 mm 9 x 9 matrix, alphanumeric code		3-630-99-8	Bag		Bag/ 40 Boxes



Filtration | Ultra Filtration | DNA Purification Liquid Handling

# FILTRATION ULTRA FILTRATION I DNA PURIFICATION





# Mini Spin Column Features | Specifications | Order Information **Systems**

#### CERTIFIED FREE

### **CUSTOMISED SOLUTIONS FOR**

FILTRATION **ULTRA FILTRATION** DNA | RNA PURIFICATION

- Developed for the use in purification, isolation and separation of biomolecules, particularly DNA/RNA
- Filter tubes can be delivered with various membrane filters depending on customer specific applications\*
- Available with 1.5 ml or 2.0 ml receiver tubes

For further information or product specific inquiries contact us info@ahn-bio.de Mini S





Mini Spin Column

round bottom

without lid

Mini Spin Column straight bottom with lid

Spin Column Single Parts without filter	Cat. No.	Pack Type	Sterilized	Sales Unit
0.8 ml, Spin Column Filter Tube, clear	3-330-50-0	Bag		1x1000
0.8 ml, Spin Column Filter Tube, clear, with filterring	3-331-50-0	Bag		1x1000
0.8 ml, Spin Column Filter Tube, clear, with cap	3-336-50-0	Bag		1x1000
1.5 ml, Receiver Tube, clear	3-200-50-0 3-200-80-0	Bag Bag		1x1000 10x1000
2.0 ml, Receiver Tube, clear	3-202-50-0 3-202-80-0	Bag Bag		1x1000 10x1000

# Filtration System

### Features | Specifications | Order Information Deep Well Microplate | Microfilterplate | Vacuum Manifold



- Elimination of risk of sample contamination Manufactured from absolutely clear high-quality virgin polystyrene
- U-bottom design with 1.0 ml capacity perfectly fits together with the most robotic systems in SBS-Standard
- Available in 8x12 matrix with 96 individual wells



- Elimination of risk of sample contamination Manufactured from high-quality clear acrylic for medical applications
- Material of individual components: Annealed, transparent acrylic **Connection sleeve - PTFE** Rubber seal - synthetic caoutchouc
- Designed for all usual filterplates according to SBS standard

### **Filtration System**

1.0 ml, Deep Well Microplate, 96 Wells, SBS, clear

Vacuum Manifold, manual, clear bottom part - height 50 mm upper part - height 20 mm spacer - height 22 mm

Uthleber Weg 14 | D-99734 Nordhausen, Germany | Tel.: +49(0)3631/46594-04 | Fax: +49(0)3631/46594-10 | E-Mail: info@ahn-bio.de | Web: www.ahn-bio.de



• Elimination of risk of sample contamination Manufactured from absolutely clear high-quality virgin polystyrene

• Available in 8x12 matrix with 96 individual drip directors in accordance with SBS-Standard

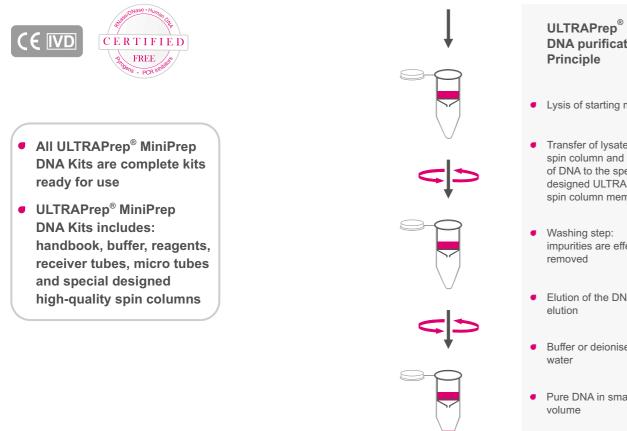
• Microfilterplate can be delivered with standard or customised\* filters depending on customer specific applications

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### Features | Specifications | Order Information

# **ULTRAPrep**<sup>®</sup> **MiniPrep DNA Kits**



ULTRAPrep <sup>®</sup> MiniPrep DNA Kits	Cat. No.	Pack Type	Sterilized	Sales Unit
ULTRAPrep <sup>®</sup> Plasmid MiniPrep Kit	6-001-00-0 6-001-01-0 6-001-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Agarose Gel Extruction MiniPrep Kit	6-005-00-0 6-005-01-0 6-005-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> PCR MiniPrep Kit	6-006-00-0 6-006-01-0 6-006-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Genomic DNA Cell&Blood MiniPrep Kit - whole blood	6-002-00-0 6-002-01-0 6-002-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Genomic DNA Tissue MiniPrep Kit - incl. mouse tail	6-003-00-0 6-003-01-0 6-003-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Genomic DNA BAC MiniPrep Kit - gram +/-	6-007-00-0 6-007-01-0 6-007-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Genomic DNA Food MiniPrep Kit - food & feed	6-008-00-0 6-008-01-0 6-008-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Genomic DNA Funghi MiniPrep Kit - funghi & yeasts	6-011-00-0 6-011-01-0 6-011-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250
ULTRAPrep <sup>®</sup> Genomic DNA Plant MiniPrep Kit - plants & soil	6-009-00-0 6-009-01-0 6-009-02-0	Carton Carton Carton		Carton/4 Carton/50 Carton/250

# **DNA** purification

- Lysis of starting material
- Transfer of lysate in the spin column and binding of DNA to the specially designed ULTRAPrep® spin column membrane
- impurities are effeciently
- Elution of the DNA using
- Buffer or deionised
- Pure DNA in small

#### 1. General

All deliveries and services are based on the following Terms and Conditions. Deviating conditions issued by the buyer are not binding, even if they are not explicitly contradicted. The buyer accepts the General Terms and Conditions of the AHN Biotechnologie GmbH as legally binding by order placement or/and acceptance of the goods. In case of entrepreneurs, this also applies to pending and all further deliveries and services. The current issue of the General Terms and Conditions of the AHN Biotechnologie GmbH shall be valid as from 01 January 2013.

#### 2. Offers and Orders

Prepared offers are always not binding. If the offer has been accepted by the orderer, the terms of sale shall be considered as accepted in their entirety. AHN Biotechnologie GmbH shall immediately respond to received offers. If the AHN Biotechnologie GmbH does not immediately oppose received offers, the offer will be seen as accepted. Therefore, deviating terms of sale and delivery issued by the orderer shall not be binding for the AHN Biotechnologie GmbH. Orders as well as any verbal side agreements require written confirmation. The exceptions to this are subsequently made verbal agreements.

#### 3. Prices

The final calculation will be carried out on the basis of the prices applicable on the date of the delivery plus VAT. In this respect, the quotations, provided in the offer and the confirmation, are not binding. Price changes are allowed when more than four months are between the conclusion of the contract and the agreed date of delivery. In case, wages, material costs, or the marketrelated cost prices increase after that period and before the completion date of the delivery, the AHN Biotechnologie GmbH shall be entitled to reasonably increase the price owing to the increase in costs. The orderer is only entitled to withdraw when the increase of the price does not only insignificantly exceed the increase of the general living costs within the period of order and delivery. If the orderer is a businessman, a corporate body under public law, or a special fund under public law, the price changes will be possible according to the before mentioned regulations provided that more than six weeks are between the conclusion of the contract and the agreed date of delivery. The prices shall apply, unless otherwise agreed, ex-works, excluding freight, custom duties, insurance and packaging. In case of delivery values below 250.00 euros, a processing charge of 25.00 euros will be charged. If unexpected changes of the goods and/or of the incidental expenses of the goods occur after the acceptance of a contract that make the fulfilment of the contract unacceptable, the contract shall be adapted to the changed conditions. The contract adaptation and the Vendor's possibility of cancellation must be reasonable for the Buyer. If no agreement will be achieved thereby, the AHN Biotechnologie GmbH will be released from the contractual obligation without the Buyer's possibility to make compensation or liability claims. The exceptions to this are compensation or liability claims due to injury to life, body, or health with intent and gross fault.

#### 4. Delivery and Shipment

The delivery is ex-works. In case of contracts and with deliveries to entrepreneurs, the goods are generally delivered on account and at the Buyer's risk. The Buyer also bears the risk if the freight is prepaid. If requested, we are willing to cover transport insurances only by invoicing the insurance rate and do not accept assume the obligation to obtain insurance. The AHN Biotechnologie GmbH is entitled to name itself as beneficiary. The vendor shall not be responsible for delays in delivery or services due to force majeure and due to events which considerably complicate the delivery or indeed render it impossible - this includes in particular strikes, lockouts, official directives etc. - also when these events occur at the sites of the vendor's suppliers or their subcontractors - even in case the vendor is bound by agreed terms and dates. They shall entitle the vendor to defer the deliveries or services for the period of hindrance plus an appropriate start-up time, and completely or in part, to withdraw from the contract due to unfulfilled terms of contract. The user will be entitled to withdraw if the performance is not available. The user explicitly undertakes to inform the contractual party immediately about the non-availability and to reimburse the counter-performance. Immediately after the completion or if the goods are ready for delivery, the orderer shall take over the goods. In case of default in taking delivery, the costs and the risk of storage shall pass to the orderer. The same applies to closing of railway lines and other transport possibilities that make the shipment impossible.

#### 5. Date of delivery

The delivery time stated in the order confirmation is an approximate date and is determined under consideration of the known facts. If these facts change until the end of delivery period through no fault of our own, or other events which cannot be accounted for by us obstruct the delivery in due time, the delivery deadline will be extended reasonably. Delivery delays due to operating disruptions, regulatory actions or force majeure cause a reasonable extension of the delivery deadline. Force majeure is also to be understood to include industrial action including strikes and legitimate lockouts at the AHN Biotechnologie GmbH or our subcontractors' sites. In this case, our customers' right to claim for damages shall be excluded. With this, partial deliveries shall be eligible provided that the reasonable minimum quantity is not undercut.

#### 6. Payment

The purchase price is payable net (for entrepreneurs) or gross (for consumers) on delivery of goods if not otherwise agreed. If the period of payment is exceeded, the AHN Biotechnologie GmbH shall be entitled to charge interest counted from the due date which refers to the value of the rate that we had to pay for the used bank loan, at least, however, of 5 % above the current bank rate of the Deutschen Bundesbank and to refuse the further fulfilment of the contract. Expenses for debt recovery and reminding shall be on the buyer's account. With this, payments shall be paid directly. The buyer is not allowed to set off any payments, insofar not undisputed or legally effective claims, or counterclaims which are ready for a decision and counterclaims arising from the synallagmatic relation are affected.

#### 7. Reservation of ownership

Until the full payment of the delivery and the regulation of all accounts payable from the business relation including interest, expenses as well as until the coverage of possible current account balance, AHN Biotechnologie GmbH reserves the property right for the delivered goods as well as in the commercial legal relations for the goods that have been manufactured using our goods. In this case, the goods will be reclaimed from the buyer without setting a final deadline or a letter of resignation if the Buyer does not meet its obligations despite of dunning notice. In the commercial legal relations, with this, the property includes the products that are produced by processing of the goods subject to retention of title or their mixtures to their full value. If the property right of third parties in the goods that are processed or mixed remains in force, we shall acquire co-property (§§ 947, 948 BGB) proportional to the invoice values of the goods to be processed. The buyer is obliged to keep the goods that are subject to retention of title safe and free of charge. As long as the buyer duly fulfils its liabilities against the AHN Biotechnologie GmbH, it shall be revocably entitled to have the goods that are subject to retention of title at its disposal in an ordinary business routine.

It shall not be authorized to pledging and assignment as security or other encumbrances. If the buyer is an entrepreneur, with this, it already assigns its claims from the resale of the goods owned or partially owned by the AHN Biotechnologie GmbH (§ 947 subparagraph 1, § 948 BGB) to the AHN Biotechnologie GmbH as a precaution. If the settlement of the claims is at risk, the buyer has to inform its customers about the assignment on request and has to pass all required information and documents to the AHN Biotechnologie GmbH. The buyer must immediately report about third parties' access to the goods that are subject to retention of title and assigned claims.

#### 8. Notifications of defects, guarantee

The buyer is explicitly responsible for application, use, and processing of the ordered goods. In the commercial legal relations, the buyer is obliged to check the goods immediately when delivered and to confirm the delivery note. Is this examination neglected, it will not be possible to claim for defective goods or the delivery of goods which do not refer to the ordered goods afterwards. Complaints concerning obvious defects can only be considered when they are made within 5 days after the goods arrived at the place of destination. If the goods are sold per FOB, complaints shall be made in a timely manner so that the shipment of obviously wrong or defective goods can be avoided. If the goods are sold per CIF- or C&F, the limitation period for filing a complaint will be 14 days after the arrival of the goods in the port of entry. A notice of defects does not release from the obligation to pay. In case the goods have been delivered on time and the suppliers have accepted the complaints, the orderer shall only be entitled for rescission of sale but not for price changes. The AHN Biotechnologie GmbH reserves the right to deliver replacement goods for the complained and returned

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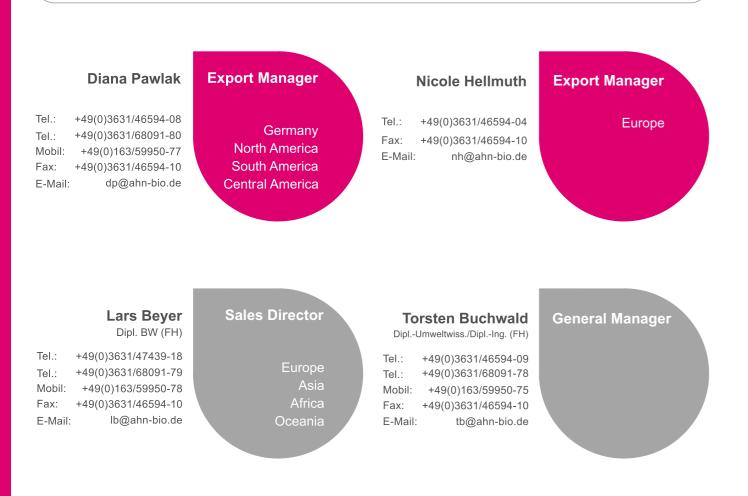
goods. In case the subsequent delivery fails again, the buyer shall be entitled to have the legal rights to withdraw from the contract. The above-mentioned paragraphs finally include the warranty for the product and exclude other warranty claims of any kind. Complaints on latent/not obvious defects have to be brought to notice immediately after they have become recognizable, however, in commercial legal relations, this has to be within 6 months after the receipt of the goods and in case of contracts with consumers, this has to be within the statutory warranty period. Warranty services are only possible under the corresponding conditions of the individual suppliers.

**9. Applicable law, place of jurisdiction, partial nullity** The Law of the Federal Republic of Germany shall be applicable for these terms of business and the entire legal relationship between the vendor and the buyer excluding the United Nations Convention on Contracts for the International Sale of Goods (CISG) as well as possible inter-governmental agreements. This also applies if the Buyer's place of business is abroad or the delivery shall be sent from or to abroad.

If the buyer is a merchant within the meaning of the Commercial Code, a legal entity under public law, or public/statutory special funds, the place of business of the AHN Biotechnologie GmbH shall be the exclusive place of jurisdiction for all disputes arising directly or indirectly from this contractual relation. Should any provision of these terms of business or a provision within the scope of any other agreements be or become ineffective, this shall not affect the validity of any other provisions or agreements.

Nordhausen, 30/11/2012





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A Harvard Bioscience Company

Uthleber Weg 14 D-99734 Nordhausen Germany Tel.: +49(0)3631/46594-04 Fax: +49(0)3631/46594-10

E-Mail: info@ahn-bio.de Web: www.ahn-bio.de

# biotechnologie GmbH

A Harvard Bioscience Company

Uthleber Weg 14 D-99734 Nordhausen Germany

Tel.: +49(0)3631/46594-04 Fax: +49(0)3631/46594-10

E-Mail: info@ahn-bio.de Web: www.ahn-bio.de