HUMAN HEALTH

ENVIRONMENTAL HEALTH

GET THE PURITY YOU'VE BEEN SEARCHING FOR

CHEMAGIC KITS

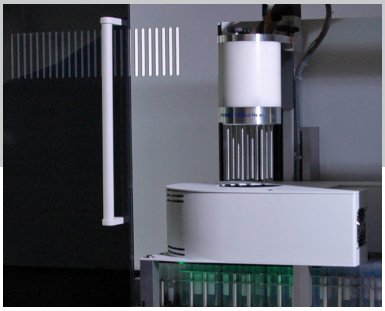
For Automated and Manual Nucleic Acid Isolation

For Research Use Only. Not for use in Diagnostic Procedures.

PerkinElmer®
For the Better

chemagic Kits

for automated use with the **chemagic MSM I**



96 well format
standard kit size:
960 preps./kit

24 well format
standard kit size:
240 preps./kit

12 well format
standard kit size:
250 preps./kit

genomic DNA and mRNA (Blood)

chemagic DNA Blood Kit special — **96**

Sample size: 50 µl	Completion time: ~ 35 min	Typical yields: 1 - 2 µg DNA	(Art. No. CMG-1072)
Sample size: 100 µl	Completion time: ~ 35 min	Typical yields: 2 - 4 µg DNA	(Art. No. CMG-721)
Sample size: 250 µl	Completion time: ~ 55 min	Typical yields: 5 - 10 µg DNA	(Art. No. CMG-746)
Sample size: 400 µl	Completion time: ~ 60 min	Typical yields: 8 - 16 µg DNA	(Art. No. CMG-1091)

chemagic DNA Blood Kit special — **24**

Sample size: 1 ml	Completion time: ~ 50 min	Typical yields: 20 - 40 µg DNA	(Art. No. CMG-1086)
Sample size: 2 ml	Completion time: ~ 65 min	Typical yields: 20 - 80 µg DNA	(Art. No. CMG-1097)
Sample size: 4 ml	Completion time: ~ 90 min	Typical yields: 60 - 120 µg DNA	(Art. No. CMG-1074)

chemagic DNA Blood Kit special — **12**

Sample size: 3 ml	Completion time: ~ 55 min	Typical yields: 50 - 100 µg DNA	(Art. No. CMG-763)
Sample size: 5 ml	Completion time: ~ 60 min	Typical yields: 70 - 140 µg DNA	(Art. No. CMG-703)
Sample size: 7 ml	Completion time: ~ 60 min	Typical yields: 100 - 200 µg DNA	(Art. No. CMG-715)
Sample size: 10 ml	Completion time: ~ 60 min	Typical yields: 150 - 300 µg DNA	(Art. No. CMG-704)

chemagic DNA Blood Spot Kit special — **96**

Sample size: 3 - 6 mm paper filters punch out	Completion time: ~ 45 min	Typical yields: 0.5 - 2 µg DNA	(Art. No. CMG-1030)

genomic DNA (Buffy Coat)

chemagic DNA Buffy Coat Kit special — **96**

Sample size: 100 µl obtained from max. 1 ml blood	Completion time: ~ 40 min	Typical yields: 5 - 10 µg DNA	(Art. No. CMG-729)
Sample size: 200 µl obtained from max. 1 ml blood	Completion time: ~ 70 min	Typical yields: 10 - 20 µg DNA	(Art. No. CMG-713)

chemagic DNA Buffy Coat Kit special — **24**

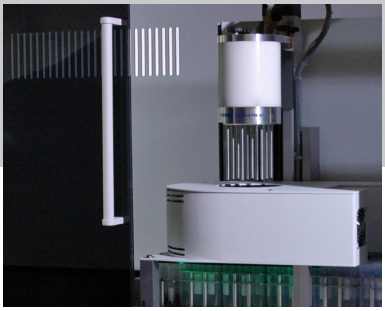
Sample size: 500 µl obtained from max. 6 ml blood	Completion time: ~ 85 min	Typical yields: 90 - 130 µg DNA	(Art. No. CMG-1080)

chemagic DNA Buffy Coat Kit special — **12**

Sample size: 2 ml obtained from max. 10 ml blood	Completion time: ~ 70 min	Typical yields: 60 - 120 µg DNA	(Art. No. CMG-728)

chemagic Kits

for automated use with the **chemagic MSM I**



96 well format
standard kit size:
960 preps./kit

24 well format
standard kit size:
240 preps./kit

12 well format
standard kit size:
250 preps./kit

genomic DNA (Amniotic Fluid)

chemagic DNA Amniotic Fluid Kit special — **12**
Sample size: 1 ml | Completion time: ~ 30 min | Typical yields: 0.5 - 3 µg DNA | (Art. No. CMG-797)

genomic DNA (Cells and Cell Pellets)

chemagic DNA Cell Kit special — **12**
Sample size: 1.2 x 10^7 cells | Completion time: ~ 40 min | Typical yields: 100 - 200 µg DNA | (Art. No. CMG-756)

genomic DNA (FFPE, Tissue)

chemagic FFPE DNA Kit special — **96**
Sample size: 10 µm or equivalent | Completion time: ~ 55 min | Sample material: 10 µm selection or equivalent of FFPE tissue | (Art. No. CMG-1099)

chemagic DNA Tissue Kit special — **96**
Sample size:10 mg | Completion time: ~ 50 min | Sample materials: animal tissues or cells (e.g. mouse tails, liver)
Typical yields: 15 - 25 µg DNA
(2 - 4 mm mouse tail); 24 - 40 µg DNA (liver) | (Art. No. CMG-723)

genomic DNA (Saliva)

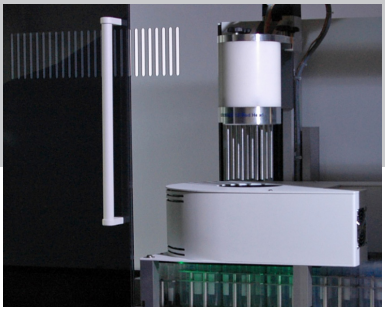
chemagic DNA Saliva Kit special — **24**
Sample size: 4 ml | Completion time: ~ 65 min | Typical yields: 100 - 150 µg DNA (depending on donor) | (Art. No. CMG-1081)

chemagic DNA Saliva Kit special — **12**
Sample size: 4 ml | Completion time: ~ 60 min | Typical yields: ~ 150 µg DNA (depending on donor) | (Art. No. CMG-1035)

chemagic DNA Saliva Kit special — **12**
Sample size: 2 ml | Completion time: ~ 55 min | Typical yields: ~ 90 µg DNA (depending on donor) | (Art. No. CMG-1092)

chemagic Kits

for automated use with the **chemagic MSM I**



96 well format
standard kit size:
960 preps./kit

24 well format
standard kit size:
240 preps./kit

12 well format
standard kit size:
250 preps./kit

genomic DNA (Buccal Swab)

chemagic DNA Buccal Swab Kit special **96**
Sample size: 1 swab per prep. Completion time: ~ 35 min Typical yields: 1 - 3 µg DNA (Art. No. CMG-748)

chemagic DNA Buccal Swab Kit special **24**
Sample size: 1 - 2 Bode™ swabs Completion time: ~ 45 min Typical yields: 10 - 25 µg DNA (Art. No. CMG-1048)

Circulating Cell Free DNA

chemagic Circulating NA Kits special **12**
Sample size: 1 ml Completion time: ~ 90 min Sample material: serum/plasma (Art. No. CMG-1096)
Sample size: 4 ml Completion time: ~ 100 min Sample material: serum/plasma (Art. No. CMG-1101)

Sample size: 4 ml Completion time: ~ 105 min Sample material: serum/plasma (Art. No. CMG-1090) **24**

Total RNA

chemagic Total RNA Kits special **12**
Sample size: 2.5 ml Completion time: ~ 100 min Sample material: stabilized blood (Art. No. CMG-1083)
Typical yields: 7 - 16 µg total RNA

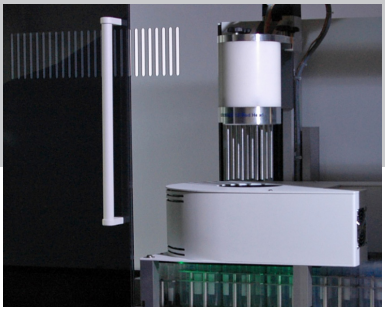
Sample size: 2.5 ml Completion time: ~ 105 min Sample material: stabilized blood (Art. No. CMG-1084) **24**
Typical yields: 7 - 16 µg total RNA

chemagic RNA Saliva Kit special **12**
Sample size: 1 ml Completion time: ~ 100 min Sample material: saliva collected with the Oragene™ system (Art. No. CMG-1093)

chemagic RNA Tissue Kit special **12**
Sample size: 50 mg Completion time: ~ 90 min Sample material: tissue (Art. No. CMG-1205)
Typical yields: (mice lung 40 µg/50 mg, yields depending on tissue)

chemagic Kits

for automated use with the **chemagic MSM I**



96 well format
standard kit size:
960 preps./kit

24 well format
standard kit size:
240 preps./kit

12 well format
standard kit size:
250 preps./kit

Viral DNA/RNA (Serum/Plasma, other)

chemagic Viral DNA/RNA Kit special **96**

Sample size: 300 µl	Completion time: ~ 60 min	Sample material: serum/plasma, swabs, feces, urine	(Art. No. CMG-1033)

chemagic Viral DNA/RNA Kits special **12**

Sample size: 1 ml	Completion time: ~ 75 min	Sample material: serum/plasma	(Art. No. CMG-1005)
Sample size: 2.4 ml	Completion time: ~ 75 min	Sample material: serum/plasma	(Art. No. CMG-1001)
Sample size: 4.8 ml	Completion time: ~ 80 min	Sample material: serum/plasma	(Art. No. CMG-1002)
Sample size: 9.6 ml	Completion time: ~ 80 min	Sample material: serum/plasma	(Art. No. CMG-749)

Viral DNA/RNA, Bacterial DNA, gDNA (Body Fluids, other)

chemagic Viral NA/gDNA Kit special **96**

Sample size: 200 µl	Completion time: ~ 70 min	Sample materials: serum/plasma, blood, swabs, feces, urine, bacterial o/n culture	(Art. No. CMG-1049)

chemagic Kits for isolation of total RNA from cells and buffy coats will follow soon.
Other chemagic Kits and protocols are available on request.

chemagic Kits

for automated use with the **chemagic Prepito**

180	Standard kit size: 180 preps./kit for 96 well plates
90	Standard kit size: 90 preps./kit for 48 well plates

genomic DNA (Blood)

Prepito DNA Blood250 Kit — **180**

Sample size: 100 - 250 µl | Completion time: ~ 40 min | Typical yields: 5 - 10 µg DNA (250 µl blood) | (Art. No. CMG-2002)

Prepito DNA Blood600 Kit — **90**

Sample size: 600 µl | Completion time: ~ 60 min | Typical yields: 12 - 24 µg DNA (600 µl blood) | (Art. No. CMG-2004)

genomic DNA (FFPE, Tissue)

Prepito FFPE Kit — **180**

Sample size:10 µm or equivalent | Completion time: ~ 45 min | Sample material: 10 µm section or equivalent of FFPE tissue | (Art. No. CMG-2027)

Prepito DNA Tissue10 Kit — **180**

Sample size: 10 mg | Completion time: ~ 45 min | Sample materials: animal tissues or cells (e.g. mouse tails, liver) Typical yields: 15 - 25 µg DNA (2 - 4 mm mouse tail); 24 - 40 µg DNA (liver) | (Art. No. CMG-2010)

genomic DNA (Cytogenetic Sample Materials)

Prepito DNA Cyto Pure Kit — **180**

Sample size: according to sample material | Completion time: ~ 45 min | Sample materials: (e.g. 250 µl blood, 10 mg tissue, pelleted amniotic fluid (1 - 5 ml)) | (Art. No. CMG-2034)

Circulating Cell Free DNA

Prepito Circulating NA1k Kit — **180**

Sample size: 1 ml | Completion time: ~ 140 min | Sample material: serum/plasma | (Art. No. CMG-2025)

chemagic Kits

for automated use with the **chemagic Prepito®-D**

180	Standard kit size: 180 preps./kit for 96 well plates
90	Standard kit size: 90 preps./kit for 48 well plates

Total RNA

Prepito Total RNA Kit — **180**

Sample size: 10 mg | Completion time: ~10 mg | Sample materials: tissue | (Art. No. CMG-2035)

Viral DNA/RNA, Bacterial DNA, gDNA (Body Fluids, other)

Prepito NA Body Fluid Kit — **180**

Sample size: 200 µl | Completion time: ~ 75 min | Sample materials: serum/plasma, serum, swabs, feces, urine, bacterial o/n culture | (Art. No. CMG-2021)

Viral DNA/RNA (Serum/Plasma, other)

Prepito Viral DNA/RNA200 Kit — **180**

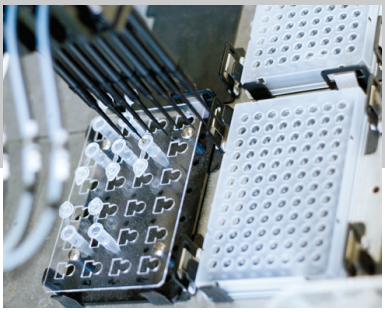
Sample size: 200 µl | Completion time: ~ 70 min | Sample materials: serum/plasma, swabs, feces, urine | (Art. No. CMG-2015)

Prepito Viral DNA/RNA300 Kit — **180**

Sample size: 300 µl | Completion time: ~ 70 min | Sample materials: serum/plasma, swabs, feces, urine | (Art. No. CMG-2017)

chemagic Kits

for automated use with liquid handling instruments and other automated platforms



for isolation of NA from e.g. blood, sequencing reaction, PCR, plants

Our kits can be adapted for the use on most liquid handling instruments and other automated platforms, e.g. PerkinElmer®, JANUS® Automated Workstation

chemagic Kits

for manual use with the **chemagic Stands**

100	Standard kit size: 100 preps./kit	**50**	Standard kit size: 50 preps./kit

genomic DNA (Blood)

chemagic DNA Blood10 Kit	Sample size: 10 µl	(Art. No. CMG-100)	**100**
chemagic DNA Blood100 Kit	Sample size: 100 µl	(Art. No. CMG-101)	
chemagic DNA Blood250 Kit	Sample size: 250 µl	(Art. No. CMG-104)	**50**

genomic DNA (Tissue)

chemagic DNA Tissue10 Kit	Sample size: 10 mg Sample materials: animal tissues (e.g. mouse tails, liver)	(Art. No. CMG-152)	**100**
chemagic DNA Tissue40 Kit	Sample size: 40 mg	(Art. No. CMG-150)	**50**

genomic DNA (Food)

chemagic Food Basic Kit	Sample size: 200 mg	(Art. No. CMG-160)	**100**
chemagic Food Extension Kit		(Art. No. CMG-161)	

Only in conjunction with chemagic Food Basic Kit (Art. No. CMG-160).
Contains additional buffers to prepare up to 2 g food material

genomic DNA (Cytogenetic Sample Materials)

chemagic DNA Cyto Pure Kit	Completion time: ~ 30 min Sample materials: (e.g. 250 µl blood, 10 mg tissue material and cell pellets from 1 - 5 ml amniotic fluid)	(Art. No. CMG-196)	**50**

mRNA (Tissue, Cells)

chemagic mRNA Direct Kit	Sample size: scalable for extration of at least 100 µg mRNA/Kit Sample materials: animal or plant tissue, cells	(Art. No. CMG-111)	**100**

chemagic Kits

for manual use with the **chemagic Stands**

100	Standard kit size: 100 preps./kit	**50**	Standard kit size: 50 preps./kit

Sequencing Products

chemagic SEQ Pure Kit	Sample size: 5 - 20 µl (without ethanol)	(Art. No. CMG-108)	**100**

Bacterial DNA (Bacterial Culture and Pellets)

chemagic DNA Bacteria Kit	Sample size: 200 µl (e.g. bacterial culture or corresponding bacteria pellet)	(Art. No. CMG-190)	**100**

Plant DNA (Plant Material)

chemagic DNA Plant Kit	Sample size: 20 - 50 mg	(Art. No. CMG-194)	**100**

PCR Products

chemagic PCR Pure Kit	Sample size: 50 µl (scalable)	(Art. No. CMG-105)	**100**

Viral DNA/RNA, Bacterial DNA, gDNA (Body Fluids, other)

chemagic Viral NA/gDNA Kit	Sample size: 200 µl	(Art. No. CMG-192)	**50**

Viral DNA/RNA (Serum/Plasma, other)

chemagic Viral DNA/RNA Kit	Sample size: 200 µl	(Art. No. CMG-193)	**100**

Viral and Bacterial Nucleic Acids

chemagic Viral NA/gDNA Kit special. All in one!
The chemagic Viral NA/gDNA Kit special is dedicated for the isolation of viral and bacterial nucleic acids. These genomes can be isolated for your research applications with chemagic kits; not suitable for use in diagnostic applications:

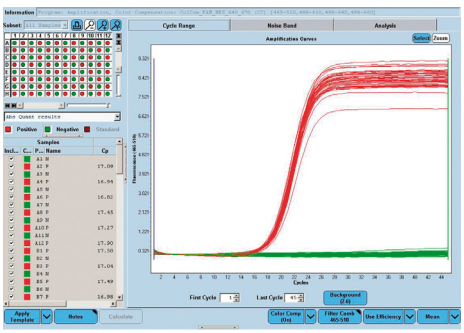
- HAV, HBV, HCV, HGV, HIV, pB19, CMV, VZV, HPV, HSV (I + II), EBV, Noroviruses, Influenza, Adenoviruses, …
- Chlamydia, MRSA, FSME, EHEC, Legionella, Listeria, Borrelia, N. Gonorroeae, Ureoplasma, Mycoplasma, …

The particular benefit of this kit is the unique possibility to isolate nucleic acids from different kinds of sample material in one run. All body fluids and many other sample materials such as

- blood, serum/plasma, urine, stool suspensions, nasal-, vaginal- and buccal swabs, sputum, liquor, puncture, cell culture, amniotic fluid, …

can be processed with just one kit – the chemagic Viral NA/gDNA Kit special. A good alternative for all blood free materials is the chemagic Viral DNA/RNA Kit special.

No cross contamination
A chess board test with stool suspensions either strong positive or negative for a Norovirus were positioned right next to each other in a 96 deep well plate. After the isolation process the extracted RNAs were analyzed in a Real Time PCR to see if any cross contamination occurred during the isolation process. The resulted PCR revealed that the positive samples did not affect any of the negative samples.



Real Time PCR. The DNA was extracted with the chemagic Viral DNA/RNA Kit special. Positive and negative Noroviruses samples were processed with the chemagic MSM I in one run. In the subsequent Real Time PCR no cross contamination occurred.

Genomic DNA

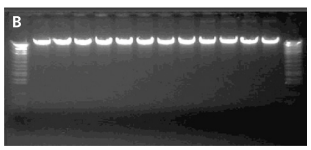
The extracted gDNA is routinely applied for e.g.: Methylation Analysis, SSCP, Southern Blotting, MLPA, Transgenomics Wave, SNPLex, HLA Typing (SSP, SSO, SBT), SNP Typing/GWA, Sequencing/Next Generation Sequencing, Array Technologies

The chemagic DNA Blood Kits are dedicated for the isolation of genomic DNA from

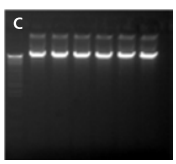
- EDTA blood
- frozen blood
- citrated blood
- PAXgene™ blood DNA tubes

The stability of the DNA isolated with the chemagic DNA Blood Kits is proven by stress tests and long term storage. Neither the activity of DNAses nor the catalyzation of DNA degradation by magnetic beads could be observed.

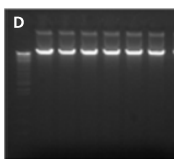
DNA obtained from 12 samples (7 ml blood each) was analyzed by agarose gel electrophoresis directly after isolation **(A).**



An aliquot of each sample was additionally stored in 10 mM Tris buffer (pH 8,0) at 4 °C for 3 years and subsequently incubated for 2 weeks at 37 °C. 500 ng of this aliquot were also analyzed by agarose gel electrophoresis **(B).**



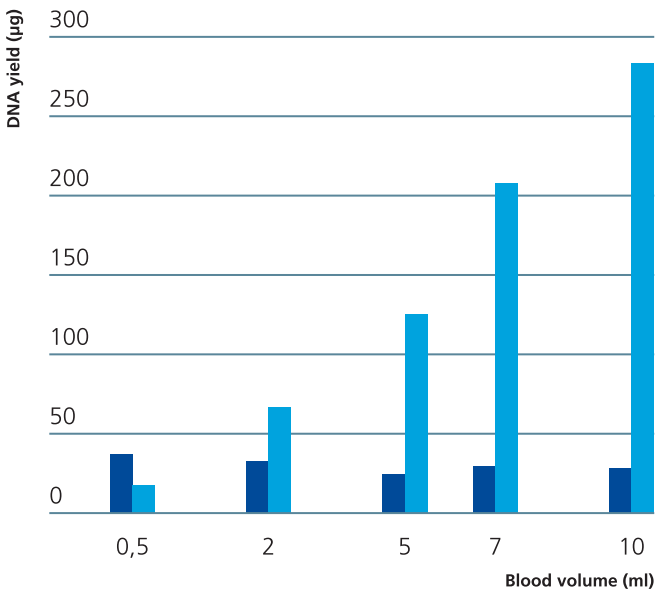
DNA analyzed after isolation (six bands, left) **(C).**



Alliquots stored 2 weeks at 37 °C after adding M-PVA Magnetic Beads (six bands, right) **(D).**

chemagic DNA Blood Kits guarantee highest DNA Yields

- gDNA isolation from different blood volumes with chemagic MSM I
- Average DNA concentration 20 - 40 µg/ml for all blood volumes
- Linear increase of total yield (µg), according to the corresponding sample volume



Concentration (µg/ml blood)

Total Yield (µg)

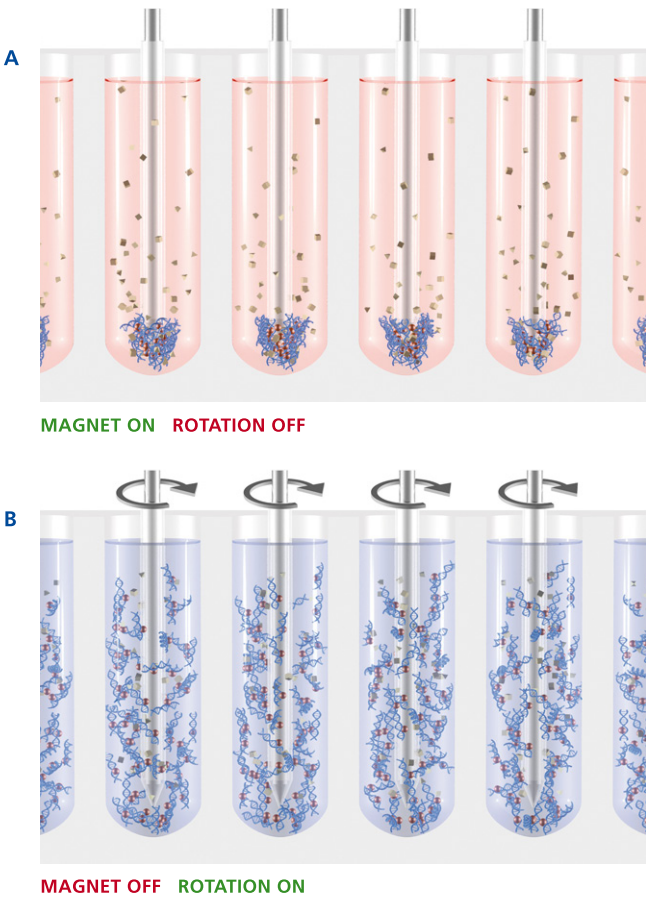
Legend

0.5 ml blood
(Average value from 50 samples)
2 ml blood
(Average value from 2,000 samples)
5 ml blood
(Average value from 1,500 samples)
7 ml blood
(Average value from 1,200 samples)
10 ml blood
(Average value from 50 samples)

Magnetic Separation

The **magnetic separation** is based on the use of metal rods that are lowered into a process solution **(A)**. To collect beads from the solution, the rods are magnetized. Pellets form at the tips of the rods, and the rods are withdrawn from the solution with the pelleted beads attached.

Resuspension into the next process solution, for example, wash or elution buffer, is achieved by switching off the magnetism while rotating the rods **(B)**. This normally difficult step is thus performed quickly and thoroughly, resulting in isolation products with high yields and purities.



PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
Phone: (+1) 800-762-4000
or (+1) 203-925-4602
www.perkinelmer.com

PerkinElmer chemagen Technologie GmbH
Arnold-Sommerfeld-Ring 2
52499 Baesweiler, Germany
Phone: (+49) 2401 805-501
Fax: (+49) 2401 805-519
info@chemagen.com, www.chemagen.com

For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

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