

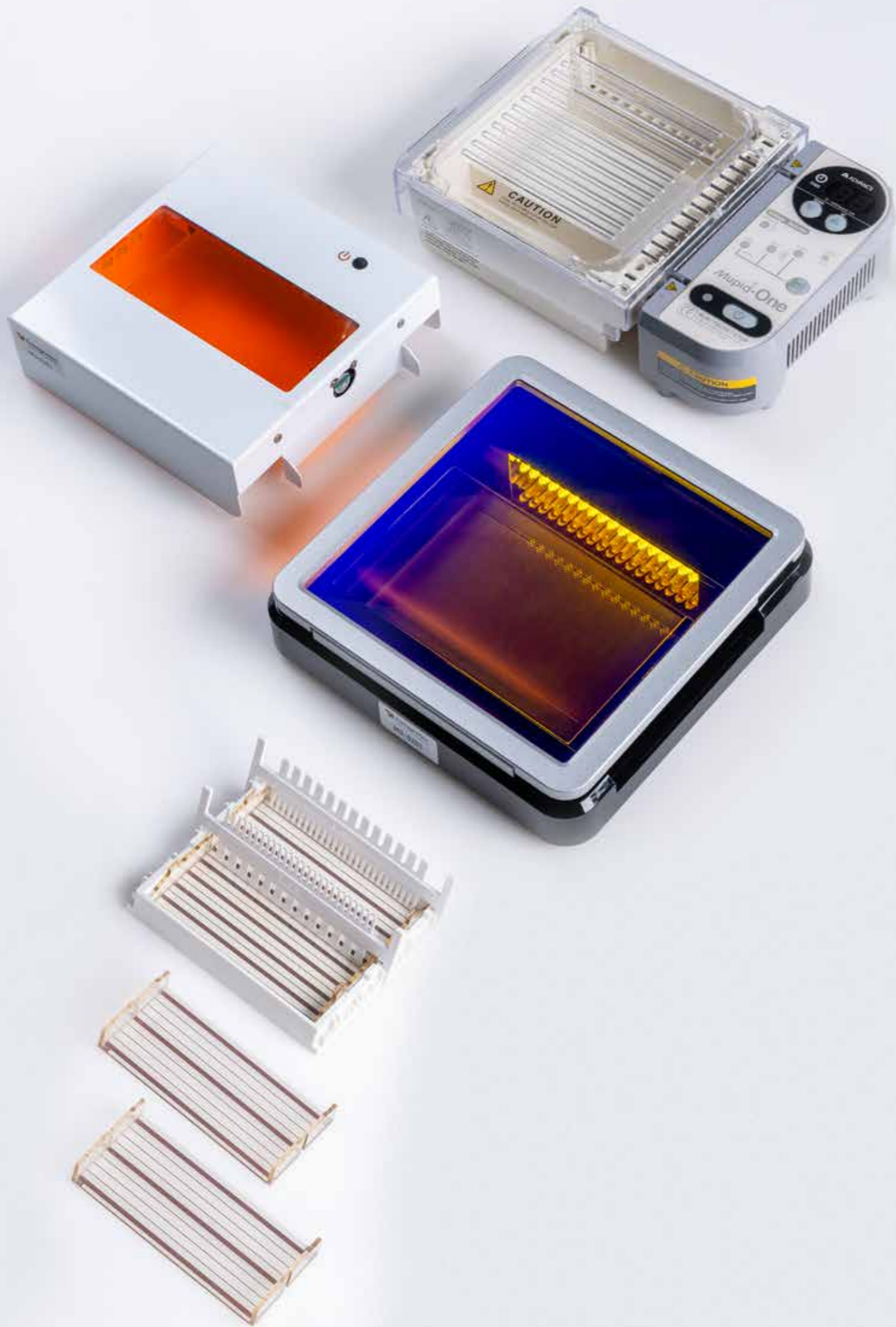
SMART

Gene Analysis

For Life Science Research

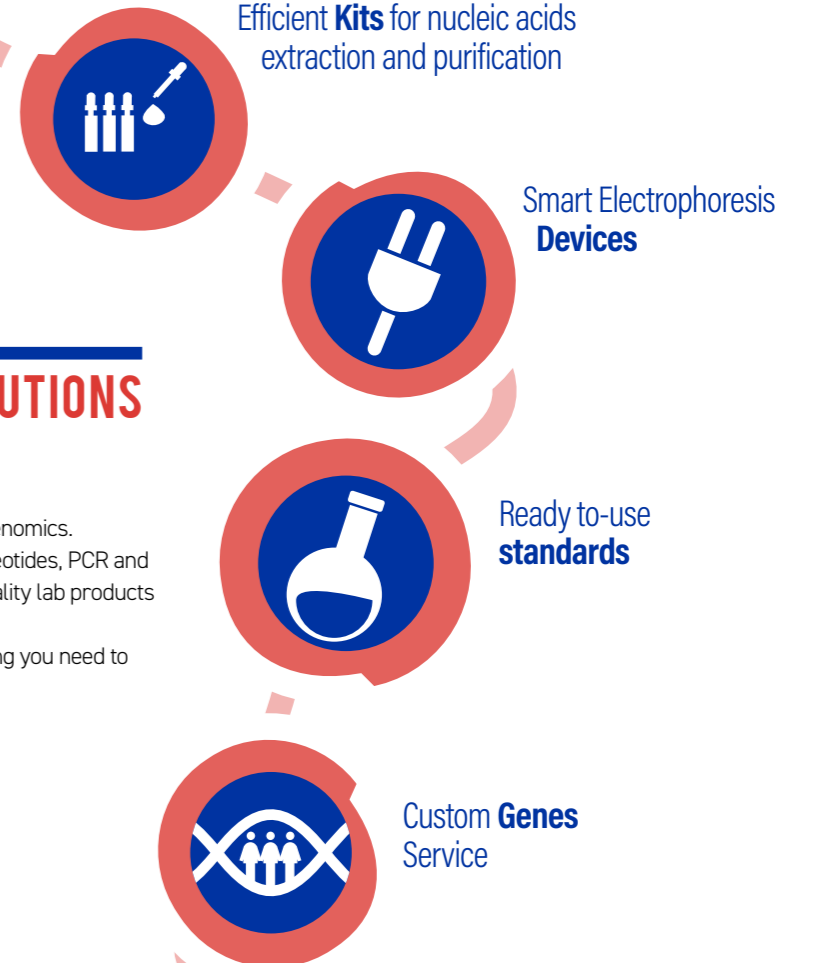
- > **Purification** kits
- > **Extraction** kit
- > **Electrophoresis** devices and consumables
- > **Transformation** products
- > Custom **genes**



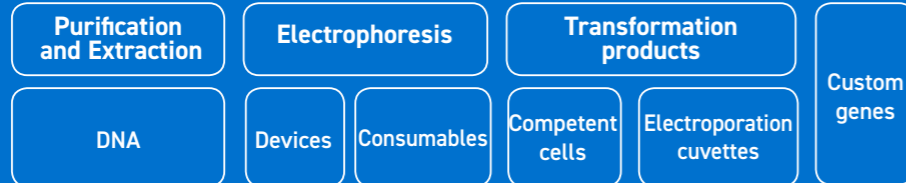


RELIABLE GENOMIC SOLUTIONS

We are committed to providing you excellence in genomics. In addition to our comprehensive offer in Oligonucleotides, PCR and qPCR, we would like to offer you additional high quality lab products and services. The SMART Gene analysis range contains everything you need to successfully achieve your nucleic acid research.



SMART Gene Analysis



- p5 **Products and services for genomics research**
- p6 **SMART Kits**
- p6 *gDNA extraction kit*
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- p8 *Electrophoresis devices*
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PRODUCTS AND SERVICES FOR GENOMIC RESEARCH

A range of products and services for accurate and fast gene cloning, purification and analysis.

ELECTROPHORESIS p.8

Devices and consumables for accurate DNA analysis on agarose gels

NUCLEIC ACIDS EXTRACTION AND PURIFICATION p.6

Smart kits for fast and efficient DNA recovery from various sample types

TRANSFORMATION PRODUCTS p.14

Ready-to-use competent bacteria and universal electroporation cuvettes

GENE SYNTHESIS p.16

100% guaranteed optimised *de novo* sequence up to 50000 bp

SMART Gene Analysis				
Purification and Extraction	Electrophoresis	Transformation products	Custom genes	
DNA	Devices	Consumables	Competent cells	Electroporation cuvettes

EASY
FAST
EFFICIENT

SMART kits

For nucleic acid purification and extraction

The Smart kits are a series of easy to use kits intended for the quick and efficient mini-purification or extraction of nucleic acids from various sample types. They have been designed to efficiently recover reliable material that can be used immediately in all your routine molecular biology applications. ■

DNA PURIFICATION KITS

SMARTPURE Plasmid

The SmartPure Plasmid Kit provides high quality purified plasmid DNA. The plasmid isolated from bacterial cell culture can be used directly in any downstream molecular biology applications.

Working time	+/- 20 min
Typical yield	Up to 40 µg plasmid DNA / 1-5 mL <i>E.coli</i> culture*

*Depending on the plasmid copy number and the culture OD.

SMARTPURE PCR

The SmartPure PCR Kit is perfectly suited to efficiently separate DNA fragments from PCR or enzymatic reaction mixtures without using toxic phenol and chloroform solvents.

Working time	+/- 6 min
DNA size range	From 60 bp to 10 kbp
Elution Recovery	≥99%

SMARTPURE Gel

The SmartPure Gel Kit is convenient for the extraction and purification of DNA fragments from up to 3% standard (or high/low melting) agarose gel in either TAE or TBE buffer.

Working time	+/- 16 min
DNA size range	From 60 bp to 23 kbp
Elution Recovery	≥99%

ORDERING INFORMATION

Description	Cat.#	Size
SmartPure Plasmid kit	SK-PLPU-100	100 preps
SmartPure PCR kit	SK-PCPU-100	100 preps
SmartPure Gel kit	SK-GEPU-100	100 preps

ALSO AVAILABLE

GeneReleaser (KA-0010-10, KA-0010-40) for DNA isolation from whole blood, cell cultures, bacterial colonies...

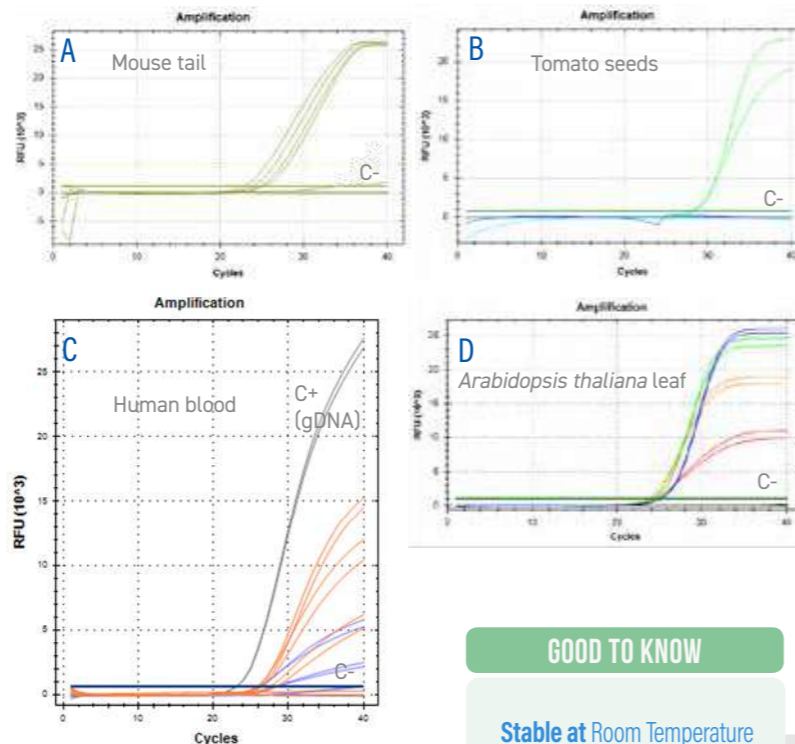
gDNA EXTRACTION KIT

The SmartExtract Kit will allow you to perform genomic DNA extraction from almost any crude sample (e.g. blood & human tissues, plant seeds & leaves...) **in only 1 tube** in 12 minutes.

The SmartExtract Kit is perfectly suited for rapid genotyping and is compatible with robotics.

Amplification of extracted DNA from various sample types

qPCR reactions were performed using different quantities of extracted DNA as template and a Takyon™ qPCR MasterMix (Eurogentec).



GOOD TO KNOW

Stable at Room Temperature



Developed by
KANeka

SMARTEXTRACT

RAPID
NO COLUMN
SUITABLE FOR END POINT PCR

INNOVATIVE
TECHNOLOGY



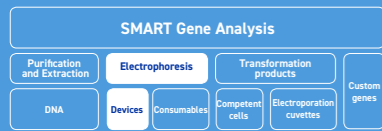
ORDERING INFORMATION

Description	Cat.#	Size
SmartExtract DNA kit	SK-DNEX-100	100 preps



“ The kit of choice for good yield of high quality plasmid DNA.
K.A. - ABERDEEN

The SmartPURE Plasmid works perfectly well.
C.J. - MONTPELLIER ”



SMART
EASY
ACCURATE

Electrophoresis

An absolute must for gene analysis

Eurogentec provides a range of high quality products and smart devices to visualise your nucleic acid samples easier, faster and with a better accuracy. ■

PACKAGE CONTENT

Numerous accessories included

- > Electrophoresis Cell
- > Safety Lid
- > Smart Power Supply
- > 2 small gel trays
- > 1 large gel tray
- > 4 reversible combs (13 - 26 wells)
- > Gel casting stand

ELECTROPHORESIS DEVICES

Mupid®-One

The Mupid®-One is a **CE labelled** electrophoresis system for agarose gels. The electrophoresis tank is directly connected to the Smart Power Supply.



FEATURES

> Multi-function Power supply

- 7 conventional voltages: (135V, 100V, 50V, 25V and 70V, 35V and 18V).
- Timer function: from 1 to 99 minutes with additional voltage alarm tone.
- *Memory*: the last voltage and timer values are recorded.
- Current intensity regulation: The Smart

Power supply of the Mupid®-One controls the voltage to maintain the current at or below the peak value

> Safety Interlock System

- The current is not delivered without the lid or the SmartViewer

> Simply Washable

- The electrophoresis gel tank can be separated from the Smart Power

supply to be washed. The buffer can be drained away from the tank easily.

> Multi-channel pipette compatible

- Up to 104 samples can be loaded on the same gel.

> Heat resistant

- Gel solution up to 100°C can be poured into the gel tray.

ORDERING INFORMATION

Product	Quantity	Cat#
Mupid®One Electrophoresis System (EU cable)	1	MU-004I-
Mupid®One Electrophoresis System (UK cable)	1	MU-004I+
Spare Parts		
Gel casting stand for Mupid®-One	1	MU-004I-SD
Gel Maker set for Mupid®-One	2 small trays 1 large tray 4 combs 1 stand pieces	MU-004I-MS
Large Tray for Mupid®-One	2	MU-004I-LT
Small Tray for Mupid®-One	4	MU-004I-ST
Standard Comb for Mupid®-One	2	MU-004I-SC

SmartViewer

The SmartViewer is an **innovative LED illuminator** for real-time tracking of your nucleic acid samples on agarose gel. It has been especially designed to be placed on the Mupid® gel electrophoresis device.



SPECIFICATIONS

- > Size: 166x170x51 mm
- > Window size: 150x60 mm
- > Filter type: Amber filter
- > Filter surface: Anti-Fog treatment
- > PCBA surface: Anti-moisture treatment
- > LED lifetime: 50000 hours
- > LED wavelength: 470 nm

FEATURES

> Time saving

No need to wait the end of the migration to visualise your DNA.

> Electrophoresis Control

Simply push the button to check the status of the gel migration.

> Compatibility

The blue LEDs of the SmartViewer can be used with the common nucleic acid dyes.

> High sensitivity

detect as low as 2 ng.

> Anti-condensation system

The amber filter underwent an anti-fog treatment. The included ventilation system prevents water condensation.

> No risk of DNA decay

The blue LEDs of the SmartViewer are less damaging than the UV flashlamp that are well-known to decay DNA.



ORDERING INFORMATION

Product	Quantity	Cat.#
SmartViewer for Mupid®	1 device	MU-0101

SmartIlluminator

The Smart Illuminator is a compact and thin LED Illuminator for nucleic acid fragments detection on stained gels.



SPECIFICATIONS

- > Size : 210 x 210 x 30 (mm)
- > Viewing surface: 120 x 70 (mm)
- > LED Wavelength: 470 nm
- > Amber filter: amber filter shield with metal frame
- > LED arrangements: matrix for two-side illumination
- > LED lifetime: 50000 hours
- > Compatible with mini gel size (mm): 110 x 60 & 55 x 60
- > Weight: 2.3 Kg

FEATURES

> **High sensitivity**
detect as low as 0.5 ng

> **No risk of DNA decay**
The blue LEDs of the Smart Illuminator are less damaging than the UV lamps that are well-known to decay DNA.

> **Compatibility**
The strong blue LEDs of the Smart Illuminator can be used with the common nucleic acid dyes (e.g. EtBr, SYBR® Safe, SYBR Gold, SYBR® Green I & II, SYPRO® Ruby, SYPRO® Orange, Coomassie Fluor™ Orange stains, GelGreen, GelRed and Lumitein™ Protein Gel Stain).

> **Compact**
The Smart Illuminator is the thinnest illuminator in the world with only 30mm in height.

> **User Friendly**
Easy to view and cut gel. No need to wear amber glasses.

ORDERING INFORMATION		
Product	Quantity	Cat.#
Smart Illuminator	1 device	MU-0201

AGAROSE

Eurogentec provides 100% pure agarose with no detectable DNase or RNase activity. Depending on your samples and applications, you will preferably use one of our three agarose formulation.

High Quality Molecular Biology Grade Agarose ideal for all your DNA/RNA analysis of DNA or RNA by gel electrophoresis and blotting.

Small Fragment Agarose is a Molecular Biology grade agarose suited for the separation of **small nucleic acid fragments** below 1000 base pairs.

AgaTabs is a Molecular Biology Grade agarose provided as a **pre-weight tablet** format. Easy-to-use it is particularly recommended for RNA manipulations by reducing the risk of nuclease contamination during weighing.

ALSO AVAILABLE

Bromophenol Blue loading dye (10 mL BioTracker 6X - Catalogue # EP-5010-10)

www.eurogentec.com



ORDERING INFORMATION

Description	Quantity	Cat.#
Molecular Biology Grade	100 g	EP-0010-01
	500 g	EP-0010-05
	2 x 500 g	EP-0010-10
Small Fragments Agarose	125 g	EP-0020-10
AgaTabs Agarose	300 tablets	EP-0030-15

MOLECULAR WEIGHT LADDERS

In order to select the right molecular weight standard it is necessary for one to consider the size of the sample to analyse and the detection method used. Here you will find a series of stained or fluorescent labelled MW Markers that will suit your needs.



GOOD TO KNOW

Using a **standard loading** of 5 µL, each band corresponds to an exact quantity of DNA, from 20 to 100 ng. ■



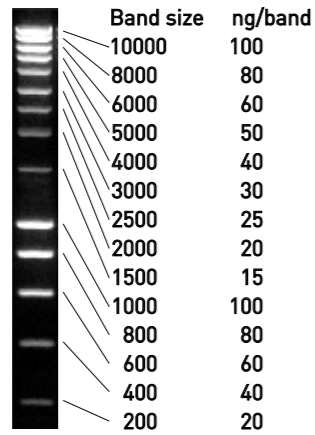
ORDERING INFORMATION

Description	Quantity	Cat.#
SmartLadder	1000 lanes	MW-1700-10
SmartLadder SF	400 lanes	MW-1800-04

SmartLadders

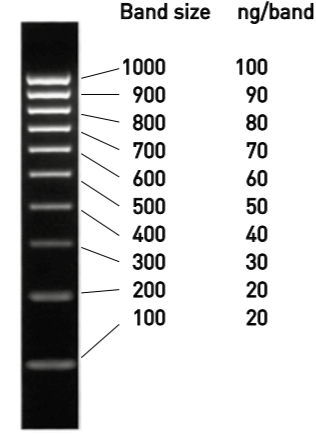
The SmartLadders are ready-to-use molecular weight markers for fast and accurate **DNA size determination and quantification**. The SmartLadders contain bromophenol blue and xylene cyanol.

SmartLadder



14 spaced bands from 200 to 10 000 bp. The 1000 and 10 000 bp bands have a higher intensity to allow quick and easy identification. The size of each band is an exact multiple of 100 bp.

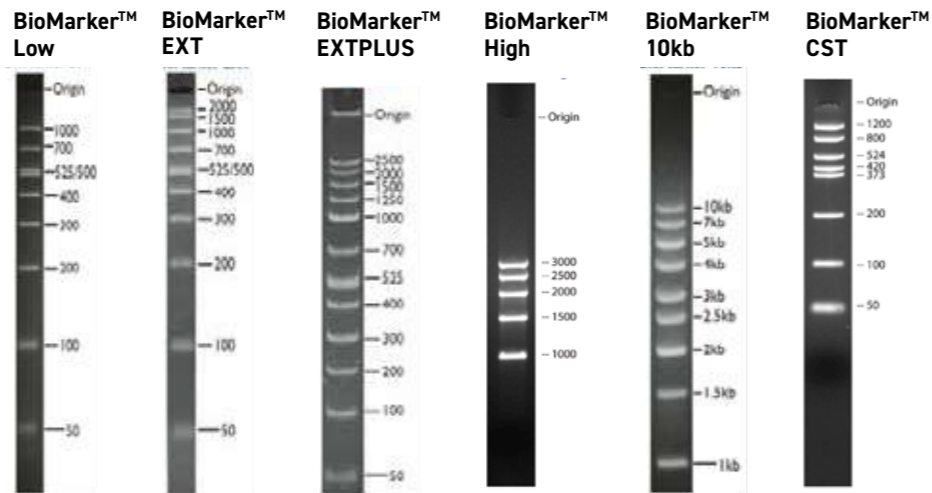
SmartLadder SF for small fragments



10 regularly spaced bands from 100 to 1000 bp. The 1000 bp band has a higher intensity to allow quick and easy identification. The size of each band is an exact multiple of 100 bp.

BioMarker™

BioMarker™ is a range of **optimal ladders** for reading DNA fragments ranging from 50 to 10000 bp. They are stable at room temperature and are supplied **dephosphorylated** in order to allow labelling with polynucleotide kinase onto free 5'-termini. Biotin and Rhodamine labelled biomarkers are also available.



Biomarker™ Low contains 8 linear double-stranded DNA bands. The concentration of each band is 50 ng/5 µl of Biomarker™ applied.

Biomarker™ EXT contains 10 linear double-stranded DNA bands. The concentration of each band is 50 ng/5 µl of Biomarker™ applied.

Biomarker™ EXT PLUS contains 12 linear double stranded DNA bands. The concentration of each band is 50 ng/5 µl of Biomarker™ applied except for 1000 bp (100 ng/5 µl).

Biomarker™ High contains 5 linear double-stranded DNA bands. The concentration of each band is 50 ng/5 µl of Biomarker™ applied.

Biomarker™ 10kb contains 9 linear double-stranded DNA bands. The concentration of each band is 50 ng / 5 µl of Biomarker™ applied.

Biomarker™ CST contains 8 specific dsDNA bands.



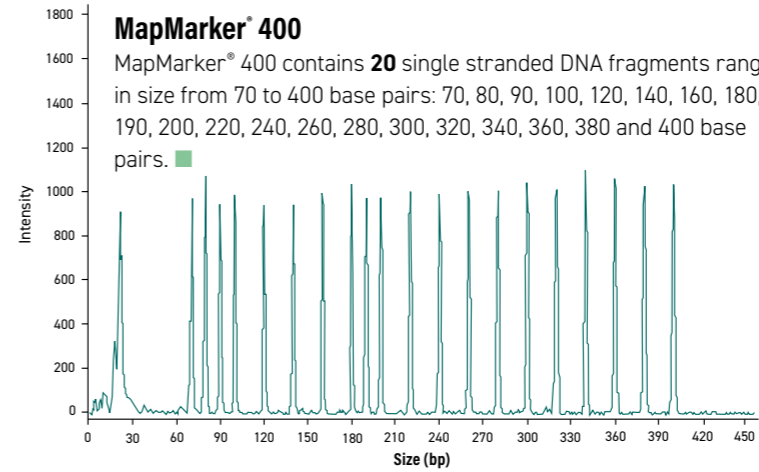
ORDERING INFORMATION

Description	Quantity	Cat.#
BioMarker™ Low	1	MW-0200-L
BioMarker™ Low biotinylated		MW-0200-LB
BioMarker™ Low Rhodamine		MW-0200-LR
BioMarker™ EXT	1	MW-0200-E
BioMarker™ EXTPLUS	1	MW-0200-EPLUS
BioMarker™ EXTPLUS biotinylated		MW-0200-EPLUSB
BioMarker™ EXTPLUS Rhodamine		MW-0200-EPLUSRH
BioMarker™ High	1	MW-0200-H
BioMarker™ High biotinylated		MW-0200-HB
BioMarker™ High Rhodamine		MW-0200-HR
BioMarker™ 10kb	1	MW-0200-10
BioMarker™ CST 524/420	1	MW-0200-SP

MapMarker®

MapMarker® are **high-quality fluorescent labelled DNA fragments** for accurate DNA sizing determination in gel electrophoresis or capillary-based systems. The MapMarker® profile is made of regular spaced bands with a concentration of 8 fmoles/band/µL. They may be used under either denaturing or non-denaturing conditions and are compatible with all fluorescent-based separation instruments systems. They are available with the most commonly used fluorescent dyes.

IDEAL FOR CAPILLARY ELECTROPHORESIS



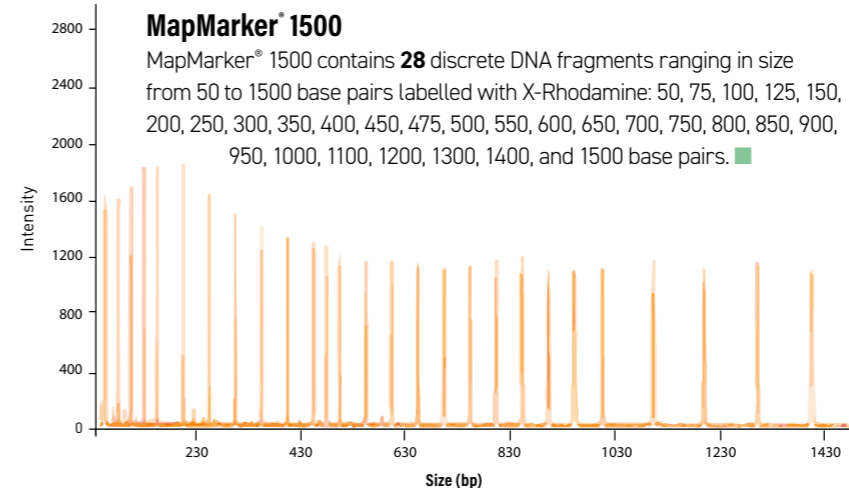
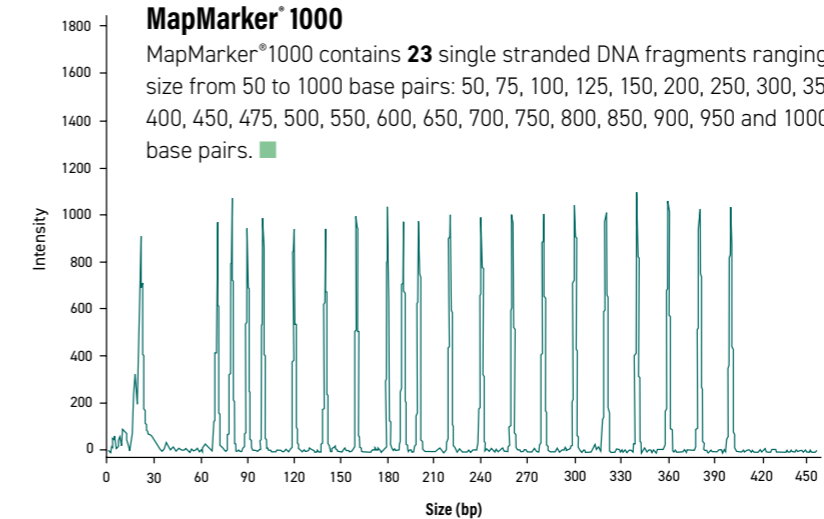
MapMarker® 500

MapMarker®500 contains **16** single stranded DNA fragments ranging in size from 35 to 500 base pairs and labelled with a single fluorophore. The exact fragment sizes are: 35, 50, 75, 100, 139, 150, 160, 200, 250, 300, 340, 350, 400, 450, 490 and 500 base pairs.

ALSO AVAILABLE

Custom MapMarker® formulation is available on request.

Contact us at info@eurogentec.com



ORDERING INFORMATION

Description	Quantity	Cat.#
MapMarker®400 ROX		MW-0190-80ROX
MapMarker®400 TAMRA	800 lanes;	MW-0190-80TMR
MapMarker®400 Fluorescein	400µL	MW-0190-80FAM
MapMarker®400 DY-632		MW-0190-80ORANGE
MapMarker®500 DY-632	800 lanes;	MW-0191-800range
	400µL	
MapMarker®1000 Cy5		MW-0195-80CY5
MapMarker®1000 Fluorescein		MW-0195-80FAM
MapMarker®1000 DY-632	800 lanes;	MW-0195-80ORANGE
MapMarker®1000 ROX	400µL	MW-0195-80ROX
MapMarker®1000 TAMRA		MW-0195-80TMR
MapMarker®1500 ROX	800 lanes;	MW-0198-80ROX
	400µL	

SAFE
CONVENIENT
EFFICIENT

Transformation products

Clone and express



MANIPULATION TIPS

The box that holds the 96 transformation tubes can be used as a rack during the transformation procedure. Remove the bottom panel of the box to thaw the cells on ice or to immerse the tubes in a water bath (during heat shock). ■

GOOD TO KNOW

Shipped with SOC medium

⇒ CHEMICALLY COMPETENT BACTERIA

DG1 chemically competent bacteria

DG1 GENOTYPE:

mcrA Δ(*mrr*-*hsdRMS*-*mcrBC*, modification-, restriction-) *80lacZDM15* Δ*lacX74* *recA1* *ara* D139(*ara-leu*)7697 *galU* *galK* *rpsL* *endA1* *nupG*.

The DG1 competent bacteria transformation **efficiency is higher than 10⁹ cfu/μg** of DNA. Therefore they are convenient **for cloning, plasmid preparation and library construction**. The DG1 cells are endonuclease and recombination minus.

These bacteria allow lacZalpha

complementation for blue/white screening.

DG1 bacteria are delivered in 1.2 mL individual test tubes containing 50 μL of competent bacteria.

⇒ ELECTROPORATION CUVETTES

Eurogentec electroporation cuvettes are moulded in high quality polycarbonate, with extremely precise and uniform electrode gaps.



ORDERING INFORMATION

Description	Quantity	Cat.#
1 mm black cap	50 pcs	CE-0001-50
2 mm yellow cap with big electrode (universal cuvettes)	50 pcs	CE-0002-50
2 mm yellow cap with small electrode (for older Bio-Rad electroporator)	50 pcs	CE-0002-50S
4 mm blue cap	50 pcs	CE-0004-50

- Compatible with most existing electroporation systems.
- 3 sizes available: 1 mm (black cap), 2 mm (yellow cap) and 4 mm (blue cap).
- Tapered bottom for easier sample handling (1 & 2 mm).
- As low as 10 μl of electrocompetent cells (for 1 & 2 mm).
- Lids with a double internal seal ensuring perfect sterility and absence of aerosols.
- Individually packaged and sterilised by gamma irradiation.
- Electrically and biologically controlled.

SMART Gene Analysis				
Purification and Extraction	Electrophoresis	Transformation products	Custom genes	
DNA	Devices	Consumables	Competent cells	Electroporation cuvettes

QUALITY
OPTIMISATION
FLEXIBILITY

Gene synthesis

WHY CHOOSE CUSTOM GENES?

De novo synthesis of DNA bypasses any hindrance encountered with classical PCR amplified nucleic acid fragments. Custom genes considerably reduce time spent on oligonucleotides design, gene cloning and sequencing. Moreover synthetic genes considerably improve the protein expression yield and quality. They guarantee the absence of undesired mutation or single nucleotide polymorphism (SNP), which may influence downstream applications. ■

BENEFITS

- From simple gene to highly complex sequence
- Up to 50 kbp
- Gene Optimisation
- 100% Guaranteed sequence
- Fast turnaround time

HOW TO START

To start discussing your own project, please contact us at gene@eurogentec.com or fill the custom gene form online: www.eurogentec.com

GENE SYNTHESIS PIPELINE

YOUR GENE IN ONLY 8 - 10 W DAYS*

- Up to 50 000 bp
- GC rich content
- Repeated sequence
- Adding or removing restriction sites
- Adding or removing specific constraints

GENE OPTIMISATION

- TATA boxes
- SD sequence
- Terminal signal
- GC content
- Cryptic splicing sites
- Negative CpG islands
- Codon usage bias
- mRNA secondary structure
- Premature PolyA sites
- RNA instability motif

THE VECTOR

- Free cloning into pUC57 (by default)
- Your own vector or other vectors such as pcDNA and pET types are available on request

TRUSTED QUALITY

- 100% sequence of your Custom Gene(s)
- Size of the inserted fragment
- Flanking regions of the chosen vector
- DNA quality and quantity

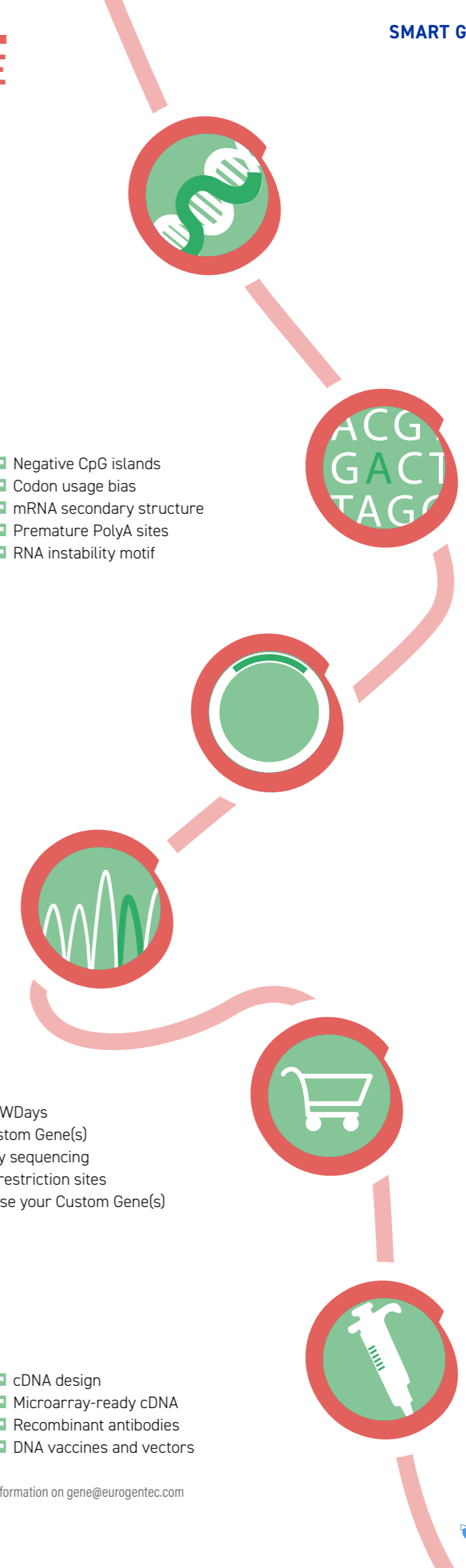
DELIVERY

- Custom Gene(s)** ≥ 2000 bp delivered within 15-20 WDays
- 4 µg** of lyophilised plasmid DNA carrying your Custom Gene(s)
- A printout of the **sequence alignment** confirmed by sequencing
- A **plasmid map** to locate the flanking regions and restriction sites
- General information and **instructions** to directly use your Custom Gene(s)
- Quality Assurance **Certificate**

APPLICATIONS

- Gene variants and SNPs
- RNA optimisation
- Codon optimisation
- Synthetic Biology
- cDNA design
- Microarray-ready cDNA
- Recombinant antibodies
- DNA vaccines and vectors

* Option available for genes ≤ 800 bp without complex sequences. More information on gene@eurogentec.com



HOW TO ORDER ON LINE

WWW.EUROGENTEC.COM

FAST AND SIMPLE

1. Register to or log in www.eurogentec.com
2. Select your product(s)
3. Fill in your cart
4. Finalise your order

More information: eos@eurogentec.com
 00 800 666 00 123
 (European toll free number)

FULL OF ADVANTAGES



1. Manage your profile
2. Fast order and favourite products
3. Request quotes

Discounted prices are automatically applied and tagged with a four-leaves clover on the related product web pages.

LICENSE STATEMENTS

January_2018

Rox Passive Reference

- The purchase of this product includes a limited, non-transferable right to use the purchased amount of the product to perform Applied Biosystems' patented Passive Reference Method for the purchaser's own internal research. No right under any other patent claim and no right to perform commercial services of any kind, including without limitation reporting the results of purchaser's activities for a fee or other commercial consideration, is conveyed expressly, by implication, or by estoppel. This product is for research use only. For information about these rights or on obtaining additional rights, please contact outlicensing@lifetech.com or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.com.

TRADEMARKS/LABELS

MapMarker® is a registered trademark of BioVentures, Inc.
 Mupid® is a registered trademark of Advance Co., Ltd
 SYBR® Green is a registered trademark of Molecular Probes, Inc.
 (a wholly owned subsidiary of Invitrogen Corp.)
 Takyon™ is a trademark of Kaneka Eurogentec S.A.

RELATED PRODUCTS

qPCR kits



Custom Oligonucleotides PCR and qPCR

- > qPCR Takyon™ kits
- > qPCR Controls
- > qPCR plastics
- > PCR Takyon™ enzymes
- > 2X Takyon™ mixes for PCR
- > dNTPs

Oligonucleotides



qPCR plastics



dNTP set



IPC & sample processing controls



Red Diamond Taq



www.eurogentec.com

Genes/DNA

Contact:

For more information,
please contact your Sales
representative or contact us at:
isales@eurogentec.com

Kaneka Eurogentec S.A.

rue Bois Saint-Jean, 5
4102 Seraing
Belgium

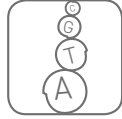
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Eurogentec 2018

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Life Science Research



Oligos



PCR/qPCR



Genes/DNA



Antibodies



Peptides



Proteins