MOLECULAR BIOLOGY







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INTRODUCTION

Since our establishment in the early 80's, Euroclone has given scientists a valuable opportunity to gain access to a world of products and equipment in Biotechnology.

During more than three decades of experience, our Company has evolved into a modern supplier of up-to-date and own-branded products, pursuing affordability and quality: all manufacturing procedures are strictly regulated with raw materials, bulks and final products undergoing stringent controls.

Euroclone provides innovative products, services and solutions for Molecular and Cell Biology, Genomics, Proteomics, Cytogenetics and Agro-Food Diagnostics.

From the choice of high-quality products to the after sales service, Euroclone is your reliable and solid partner for your scientific challenges.

In 2019 Euroclone is acquired by AddLife AB becoming part of an important international group. This step ensure continuity and further expansion of the company in the Italian market and in the export of the proprietary private lines, key and distinctive element of the identity of Euroclone.

NUCLEIC ACIDS ISOLATION SYSTEMS

Nucleic acids isolation is a crucial step in many experimental workflows. Our range of fully validated kits have been developed for use with diverse starting materials to ensure fast isolation of highly purified nucleic acids.

- $\checkmark\,$ Fast and easy protocols
- $\checkmark\,$ High quality and yields
- ✓ Cost effective

Nucleic Acids Isolation Systems

TriFast[™] II - Nucleic Acids Isolation Reagent

TriFast^w II is a ready-to-use reagent for the extraction of RNA, DNA and proteins from a variety of starting materials. Used in conjunction with chloroform extraction, it allows the isolation of RNA, DNA and proteins from the same sample.

This method for purifying nucleic acids does not exclude very small or very large molecules and it is therefore suitable for studies of miRNAs or mRNAs. Additionally, this protocol produces high quality RNA suitable for applications such as cDNA synthesis and Real Time-PCR, Northern Blot or dot blot hybridization. DNA is suitable for use in enzymatic reactions such as restriction digestions or ligations, DNA sequencing, PCR, Southern Blot. The purified proteins can be used for Western Blot analysis.

Features

- Purification: RNA, DNA and proteins
- Format: Reagent + phenol/chloroform
- Starting materials: Wide ranging
- Staring Quantity: Scalable
- Expected Yield: Up to 7 μg/mg tissue
- Protocol time: 1+ hours

Protocol at-a-glance

- ✓ Homogenization and lysis of the sample with TriFast[™]
- Centrifugation
- ✓ Addiction of chloroform and RNA extraction from the upper phase
- RNA precipitation and resuspension
- ✓ DNA extraction from the interphase/organic phase
- ✓ DNA precipitation and resuspension
- Protein extraction from the ethanol/phenol phase
- Protein purification

Expected Yields

RNA and DNA from tissue

Tissue	RNA	DNA
Liver	6-10 μg/mg	3-4 μg/mg
Kidney	3-4 μg/mg	3-4 µg/mg
Skeletal muscle	1-1,5 μg/mg	2-3 μg/mg
Brain	1-1,5 μg/mg	2-3 μg/mg
Placenta	1-4 μg/mg	2-3 μg/mg

RNA and DNA from cell culture

Cell Type	RNA	DNA
Epithelial cells	8-15 μg/10 ⁶ cells	5-7 μg/10 ⁶ cells
Fibroblast	5-7 μg/10 ⁶ cells	5-7 μg/10 ⁶ cells

Ordering information

Cat. Num.	Description	Size
EMR517100	TriFast [™] II - Nucleic Acids Isolation Reagent	100 ml
EMR517200	TriFast [™] II - Nucleic Acids Isolation Reagent	200 ml

Storage and Stability 6 months at 4°C

Shipping Blue Ice

TriFast[™] II In

RNA Out

DirectFAST

For a quick purification of high-quality (DNA-free) total RNA directly from TriFast[™] II reagent, bypassing phase separation and precipitation procedures, TriFast[™] II is available with Direct-zol RNA MiniPrep spin columns from our partner Zymo Research.

Obtained RNA is ultra-pure and NGS-ready; no phenol carryover or DNA contamination (DNase I included).

Features

- Purification: total RNA, including small RNAs (>17 nt)
 Format: Trireagent + spin-column
- Starting materials: a variety of sample sources
- Starting Quantity: DirectFAST up to 5x10⁶ cells or 25 mg tissue; DirectFAST Plus up to 1x10⁷ cells or 50 mg tissue
 Binding capacity: DirectFAST up to 50 μg; DirectFAST Plus
- up to 100 µg
- Elution volume: DirectFAST 25 μl; DirectFAST Plus 50 μl
- Protocol time: 7 minutes (sample preparation not included)

Protocol at-a-glance

- Apply a prepared sample in TriFast[™] II directly
- to the Direct-zol-Spin Column
- Bind
- Wash
- Elute the RNA

1



High-quality intact small and large RNAs are efficiently recovered using TriFast" II and Direct-zol'" RNA Kit compared to using a Supplier Q Kit. RNA is DNA-free and ready for all downstream applications including NGS.

Ordering information

Cat. Num.	Description	Size
EMR527100	DirectFAST (Direct-zol™ RNA MiniPrep + TriFast™ II)	100 prep
EMR527200	DirectFAST (Direct-zol™ RNA MiniPrep + TriFast™ II)	200 prep
EMR528100	DirectFAST Plus (Direct-zol [™] RNA MiniPrep Plus + TriFast [™] II)	100 prep
EMR528200	DirectFAST Plus (Direct-zol™ RNA MiniPrep Plus + TriFast™ II)	200 prep

Storage and Stability TriFast[™] II 6 months at 4°C; Direct-zol 1 year at room temperature **Shipping** Room Temperature

NEW **RNAGarde- Solution To Protect And Stabilize RNA**

RNAGarde is a solution to stabilize and protect RNA within intact tissue samples, eliminating the urgency to process or deep-freeze samples instantly. Once tissues are harvested, they can be directly immersed in the RNAGarde, ensuring that the RNA remains intact even during storage or transport at different temperatures.

RNAGarde is versatile and effective in preserving RNA from a broad range of biological sources such as most animal tissues, cultured cells, white blood cells, certain plant tissues, bacteria and yeast.

The solution is compatible with a variety of RNA isolation techniques; samples stored in RNAGarde can be used to extract both DNA and RNA, as DNA is preserved along with RNA.

Features

- · Ready to use
- Rapid tissue permeation, immediate RNAse inactivation
- Suitable for field collection
- Safe & non-toxic
- Versatility in RNA isolation & high-quality
- Protection for RNA, DNA and proteins
- Effective at different temperature for different time

Protocol at-a-glance

- Sample preparation Immersion in RNAGarde solution
- Store at different temperature (37°C 1 day; 25°C 1 week; 4°C 1 month; <-20°C indefinitely)

Ordering information

Cat. Num.	Description	Size
EMR605100	RNAGarde- RNA Stabilization Solution	100 ml

Storage and Stability 36 months at Room Temperature **Shipping** Room Temperature

EuroSAP - PCR Enzymatic Clean-up kit

EuroSAP is a quick and efficient PCR clean-up kit designed to remove primers and nucleotides from PCR products. It is based on the activity of two hydrolytic enzymes, recombinant Shrimp Alkaline Phosphatase (SAP) and Exonuclease I (Exo I); the combined action of these enzymes ensures complete dephosphorylation of dNTPs and degradation of residual primers. The reagents are active in commonly used PCR buffers and eliminates the need for buffer exchange. Purified DNA is ready for all downstream applications, such as sequencing, genotyping, cloning or SNP analysis.

This enzymatic protocol yields 100% product recovery for even very short PCR products and it is compatible with automatic processes.

Features

- Purification: DNA from PCR reaction mixes
- Format: Two reagents kit
- Starting materials: PCR reaction mixes
- Starting quantity: Scalable
- Protocol time: 15 min



Total recovery of intact PCR product: Agarose gel showing three different PCR products before and after EuroSAP treatment. No loss of PCR product was detected even with small fragments.

Protocol at-a-glance

- ✓ Addition of SAP and Exo I to PCR mix
- / Incubation at 37°C
- Heat inactivation at 80°C



Importance of PCR clean-up before sequencing: Two samples of PCR products were either treated (panel A) or untreated (panel B) with EuroSAP kit. The enzymatic clean-up results in significant improvement of overall sequence length and quality.

Ordering information

Cat. Num.	Description	Size	
EMR520500	EuroSAP PCR Enzymatic Clean-Up Kit	500 rxn (500 μl SAP, 500 μl Exo I)	
EMR520001	EuroSAP PCR Enzymatic Clean-up Kit	1000 rxn (2 x 500 μl SAP 2 U/μl, 2 x 500 μl Exo I 10 U/μl)	
EMR520002	EuroSAP PCR Enzymatic Clean-Up Kit	2000 rxn (4 x 500 μl SAP 2 U/μl, 4 x 500 μl Exo I 10 U/μl)	

Storage and Stability 12 months at -20°C Shipping Dry ice

RELATED PRODUCTS

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DNA ladders	pag. 25 - 26

POLYMERASES AND AMPLIFICATION

PCR, RT-PCR and qPCR are routine applications in every molecular biology lab. Our range of polymerases and PCR reagents undergoes severe and rigorous production procedures, ensuring the highest quality and the best batch-to-batch consistency.



Wonder Taq and Wonder Taq Hot start

Wonder Taq is a recombinant thermostable DNA polymerase engineered to give robust amplification and high yield with different PCR templates. Wonder Taq DNA Polymerase is supplied with an optimized reaction buffer already containing dNTPs, MgCl, and enhancers, avoiding the need of optimizing the reaction conditions.

In the Hot Start version, the enzyme is complexed with a monoclonal antibody blocking the polymerase activity at room temperature and preventing non-specific amplification. Activation occurs at 70°C, during the first step of denaturation.

Features

- Amplicon size: Up to 5 kb
- Resulting ends: A-tail
- Units per reaction (50 μl): 1.25 5
- Reaction Buffer: 5X, containing dNTPs, MgCl, and enhancers

Applications

- Standard PCR
- High-yield PCR
- Fast PCR
- Colony PCR
- TA cloning
- Genotyping
- GC-rich amplification



Wonder Taq



Competitor GT

Increased yield with GC-rich targets (61% GC). Amplification of a 450 bp fragment from serial dilutions of human genomic DNA (from 1 µg to 12,5 ng) with Wonder Taq (upper panel) or a competitor enzyme (lower panel).



Competitor tag HS

Wonder Tag HS

Higher yield in multiplex amplification. Amplification of 477 bp, 489 bp and 961 bp fragments from 2 different samples of human genomic DNA were carried out using either Wonder Taq HS or a competitor HS enzyme. Lanes 1;7 and 2;8 : undiluted sample A and B respectively. Lanes 3;9 and 4;10 : 1/10 dilution of sample A and B respectively.

Ordering information

Cat. Num.	Description	Size
EME020001	Wonder Taq	1000 units
EME023500	Wonder Taq Hot Start	500 units

Storage and Stability 2 years at -20°C **Shipping** Blue Ice

qPCR

FluoCycle II[™] Master Mix for Real Time PCR

Euroclone qPCR master mixes are ready-to-use 2X solutions optimized for Real Time PCR. The master mixes include Wonder Taq Hot Start DNA polymerase and dNTPs in an optimized buffer.

The SYBR® Master Mix contains the green intercalating dye allowing DNA detection and analysis without using sequence-specific probes. Only template and primers need to be added.

The Master Mix for Probe has been formulated for the detection of amplicon product with sequence specific fluorogenic probes. Primers, probe and template must be added before use.

Features

- Wide linear range
- Detection of low copy number targets
- Highly reproducibility and minimum hands-on time
- High specificity



Linear target amplification with a dynamic range across 5 orders of magnitude of input. Amplification plot and standard curve from real-time PCR for a dilution series of human CLUSTERIN cDNA amplified in 3 replicate reactions using the Step One Plus Real-Time PCR System, FluoCycle II Master Mix for probe and specific clusterin probe.



Specific and reproducible qPCR with 2 different instruments using Euroclone FluoCycle II[™] Master Mix. Amplification of the human β-globin gene was performed on serial dilutions of genomic DNA. Instruments used: A: Cepheid[®] SmartCycler[®]. B: Corbett RotorGene[®] 3000.

Ordering information

Cat. Num.	Description	Size
ERD001250BIM	FluoCycle II [™] Master Mix for Probe	500 rxn (reaction volume 25 μl)
ERD002250BIM	FluoCycle II [™] SYBR [®] Master Mix	500 rxn (reaction volume 25 μl)

Storage and Stability 1 year at -20°C

Shipping Blue Ice

Notice to purchaser: limited license

For Research Use Only (RUO). Diagnostic uses under Roche patents require a separate license from Roche. No right under any patent claim (ex: Patents Nos. 5,210,015 and 5,487,972), no right to perform any patented method, 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. Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required. Further information on purchasing licenses: Director of Licensing, Applied Biosystems, 850 Lincoln CentreDrive, Foster City, California 94404 USA.

RT-PCR

Wonder RT - cDNA Synthesis kit

Wonder RT kit is a rapid and very sensitive method for first strand cDNA synthesis. It is a two-components system: 1) an extremely efficient reverse transcriptase allows highly robust first strand synthesis and higher cDNA yields from a wide range of input RNA concentrations; 2) a 5x Reaction Buffer Mix provides highly optimized components for efficient reverse transcription.

Features

- Easy reaction set up: primers and dNTPs are included in the 5x Reaction Buffer Mix and RNase inhibitor is included in the Reverse Transcriptase Mix
- Unbiased: primers are composed of an optimized mixture of random hexamers and anchored oligo dT primers for complete 5' to 3' RNA sequence representation
- Fast: high-yield reverse transcription in as little as 25 minutes
- Robust: reliable reverse transcription even with complex templates or in the presence of inhibitors thanks to specific enhancers included in the 5x Reaction Buffer Mix
- Sensitive: down to 1 pg of input RNA and accurate detection of very low-copy targets

Applications

- Gene expression analysis
- / Tissue biopsy analysis
- ✓ miRNA profiling/quantification
- ✓ RNA target detection
- Pathogen detection



Speed and sensitivity. Wonder RT kit was used in first-strand cDNA synthesis reactions of total RNA, following the recommended reaction conditions. A 10-fold serial dilution of the cDNA was then used in qPCR reactions, using SYBR. The results illustrate that Wonder RT (red) is both faster and more sensitive than competitor Q (blue), as judged by the earlier Ct values and improved uniformity between standard curves of decreasing amounts of input RNA.

The yield and the intensity are similar between Wonder RT and our old Euroscript M-MLV-RT, in both case yield and intensity are superior than Competitor A. 2µl were used as a template in each PCR.

Ordering information

Cat. Num.	Description	Size*
EME037050	Wonder RT - cDNA Synthesis kit (50 rxn)	50 rxn
EME037250	Wonder RT - cDNA Synthesis kit (250 rxn)	5 x 50 rxn

*reaction volume 20 µl

Storage and Stability 2 years at -20°C Shipping Dry Ice

Reagents

RNase inhibitor

RNase Inhibitor completely inhibits the activity of RNases A, B and C by non-covalent binding. It binds the RNases in a 1:1 ratio. It does not inhibit the RNases I, T1, T2, H, U1, U2 and CL3.

Ordering information

Cat. Num.	Description	Size
EMR436050	RNase Inhibitor	2000 units (50 μl)
EMR436250	RNase Inhibitor	10000 units (250 µl)

Storage and Stability 1 year at -20°C

Shipping Blue Ice

Oligo (dT)₂₀ Primer and Random Hexamers

Oligo (dT) Primer hybridizes to the poly(A) tail of mRNA and is used as primer for first stand cDNA synthesis with reverse transcriptases. Random Hexamers are a mixture of oligonucleotides representing all possible sequences for a hexamer.

Random Hexamers are used in DNA labelling by PCR (DOP-PCR) or cDNA synthesis by RT-PCR.

Ordering information

Cat. Num.	Description	Size
EMR433200	Oligo (dT) Primer 100 μM	200 μl
EMR433001	Oligo (dT) Primer 100 μM	1 ml
EMR428200	Random Hexamers 100 μM	200 μl
EMR428001	Random Hexamers 100 µM	1 ml

Storage and Stability 1 year at -20°C Shipping Blue Ice

dNTPs

Euroclone's enzymatic dNTP manufacturing process and refined purification protocols ensure the highest quality of deoxynucleotides. All our dNTPs are ultrapure (> 99%) and quality checked by a set of PCR, RT-PCR and Klenow reactions.

Euroclone dNTPs are available as single bases, set or mix. Individual nucleotides are supplied as single ready-to-use 100 mM solutions or as a 4 x 250 μ l set. The dNTP mix consist of a mixture of dATP, dCTP, dGTP and dTTP (final concentration of each nucleotide 10 or 25 mM).

Euroclone dNTPs have the highest purity, are free of strong PCR inhibiting contaminants as tetraphosphates and pyrophosphates. All lots are checked on HPLC for their purity using a sensitive acetonitrile gradient in 20 mM KH_2PO_4 , 2 mM TBA-SO₄ on a Eurospher-100 C18 RP-column (4 x 250 mm). Detection occurs at 254 nm.

Ordering information

Cat. Num.	Description	Size
EMR272025	dATP 100 mM Solution	250 μl (25 μmol)
EMR273025	dCTP 100 mM Solution	250 μl (25 μmol)
EMR274025	dGTP 100 mM Solution	250 μl (25 μmol)
EMR275025	dTTP 100 mM Solution	250 μl (25 μmol)
EMR276425	dNTP set	4 x 250 μl (4x25 μmol)
EMR276001	dNTP set	4 x 1 ml (4 x 100 μmol)
EMR415001	dNTP Mix 25 mM solution	1 ml (25 µmol)
EMR416200	dNTP Mix 10 mM solution	200 μl (2 μmol)
EMR416001	dNTP Mix 10 mM solution	1 ml (10 μmol)

Storage and Stability 1 year at -20°C

Shipping Blue Ice

NTPs

Nucleotide Triphosphates (NTPs) are available as 100 mM ready-to-use solution.

Our NTP solutions are optimized for in vitro transcription with the common polymerases and the major commercially available transcription kits.

Ordering information

Cat. Num.	Description	Size
EMR423001	ATP 100 mM solution	1 ml (100 μmol)
EMR424001	CTP 100 mM solution	1 ml (100 μmol)
EMR425001	GTP 100 mM solution	1 ml (100 μmol)
EMR426001	UTP 100 mM solution	1 ml (100 μmol)

Storage and Stability 1 year at -20°C

Shipping Blue Ice

Water for molecular biology applications



Water for Molecular Biology applications, free from DNA, DNase, RNase and free from PCR inhibitors.

Features

Color: colorless/clear
Sterile filtered, filter 0.2 μm

- Sterility tests on aerobic/anaerobic bacteria
 Endotoxin (LAL):<0.1 EU/ml
- Endotoxin (LAL):<0.1

Ordering information

Cat. Num.	Description	Size
EMR307500	Water for Molecular Biology	500 ml

Storage and Stability 3 years at Room temperature Shipping Room Temperature

RELATED PRODUCTS

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NUCLEIC ACIDS ELECTROPHORESIS

Separation of nucleic acids basing on their size on agarose gel is a very common analytical technique applied in several molecular biology process flows such as PCR amplification, sequencing, cloning, or blotting. Our selection of agaroses, stain and DNA ladders will help to achieve optimal results in every experiment.

Agaroses

Euroclone offers a complete selection of high-quality agaroses for standard and specific electrophoresis applications.

	Agarose LE	GellyPhor [®] LE Quick Solving	GellyPhor [®] LM	GellyPhor® ULTRA	GellyPhor [®] HR	GellyPhor [®] PFGE
DNA separation 1-50 kb	-	-	-	-	-	\checkmark
DNA/RNA separation ≤1 kb	\checkmark	\checkmark	-	\checkmark	\checkmark	-
DNA/RNA separation ≥1 kb	\checkmark	\checkmark	\checkmark	-	-	\checkmark
DNA separation 20- 800 bp	-	-	-	\checkmark	-	-
Blotting	\checkmark	\checkmark	-	-	\checkmark	\checkmark
DNA finger printing	\checkmark	\checkmark	-	-	-	-
Nucleic Acid Recovery	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

Agarose LE Agarose for Nucleic Acids routine screening electrophoresis

Agarose LE is a multi-purpose agarose with low EEO and standard melting point, ideal for routine DNA and RNA gel electrophoresis and blotting. Its optimized gel strength makes gel processing and handling easy. It yields sharp DNA bands with high clarity and low background.

Technical Specification

- Gelling Temperature (1,5%): 36°C \pm 1,5°C
- Moisture: ≤ 10%
- Gel strength (1%): \geq 1200 g/cm²
- EEO: ≤ 0,13 (-Mr.)
- Sulphate: ≤ 0,20%
- RNAse/DNase Activity: None detected

Ordering information

Cat.	Description	Size
EMR900500	Agarose LE Agarose for Nucleic Acids routine screening electrophoresis	500 g

Storage and Stability 5 years at Room Temperature

Shipping Room Temperature

GellyPhor[®] LE Quick Solving

GellyPhor® LE Quick Solving is ideal for general nucleic acids preparative and analytical gel electrophoresis as well as for blotting.

This gel sharply resolves the different DNA fragments to be analyzed and provides consistent resolution from batch-to-batch. It forms high strength gels with low background upon staining with ethidium bromide or alternative safer reagents. Due to the low electroendosmosis value (EEO) of GellyPhor* LE, the DNA has a high electrophoretic mobility allowing shorter running time.

GellyPhor® LE agarose Quick Solving has a special particle size distribution, providing an easier and faster dissolution either by standard boiling or microwaving.

Technical Specification

- Gelling Temperature (dynamic measurement in 1.5% solution): 36 ± 1.5 °C
- Gel strength (1%): ≥ 1200 g/cm2
- EEO: 0.05-0.13 (-Mr)
- Sulphate: ≤ 0.1%
- Moisture: ≤ 8.5%
- RNase/DNase Activity: Not detected

Ordering information

Cat. Num.	Description	Size
EMR910100	GellyPhor [®] LE agarose Quick Solving	100 g
EMR910500	GellyPhor [®] LE agarose Quick Solving	500 g
EMR910001	GellyPhor [®] LE agarose Quick Solving	1 kg

Storage and Stability 5 years at Room Temperature

Shipping Room Temperature

GellyPhor[®] LM

GellyPhor® LM is a low melting temperature agarose. This molecular biology grade agarose produces gels with greater sieving properties and higher clarity than standard melting temperature agarose. The low melting temperature of GellyPhore LM makes it ideal for preparative nucleic acids electrophoresis, while its low gelling temperature is perfect for cloning of tissue culture cells and viral plaque assays.

Technical Specification

- Gelling Temperature (dynamic measurement in 1.5% solution): 24 28°C
- Gel strength (1.5%): ≥ 500 g/cm2
 EEO: ≤ 0.12 (-Mr,)
- Sulphate: ≤ 0.12%
- Moisture: ≤ 7%
- Melting Temperature (1.5%): ≤ 65.5°C
- RNase/DNase Activity: Not detected

Ordering information

Cat. Num.	Description	Size
EMR911100	GellyPhor [®] LM	100 g

Storage and Stability 5 years at Room Temperature Shipping Room Temperature

GellyPhor[®] HR

GellyPhor® HR is a molecular biology grade standard melting temperature agarose, that yields strong gels for fine resolution of small nucleic acids fragments. Performance testing of GellyPhor* HR ensures fine resolution of DNA fragments up to 1000 bp, though this agarose is capable of finely resolving DNA fragments ranging from 10 bp up to 1200 bp. GellyPhor® HR is designed for analytical electrophoresis.

Technical Specification

- Gelling Temperature (dynamic measurement in 3% solution): 35.5°C
- Gel strength: \geq 600 g/cm² (for a 1.5% gel), \geq 1500 g/cm² (for a 3% gel)
- EEO: ≤ 0.12 (-Mr.)
- Sulphate: ≤ 0.11¹/₂
- Moisture: ≤ 7%
- Melting Temperature (3%): ≤ 80°C
- RNase/DNase Activity: Not detected

Ranges of separation*

- 1.8%: 400 1200 bp
- 3%: 150 800 bp
- 4.5%: 15 400 bp

(*) These ranges are approximate and have been calculated in TAE Buffer. To achieve the best resolution of GellyPhor® HR gels, they should be stored at 4°C/8°C for 30 minutes before use.

Ordering information

Cat. Num.	Description	Size
EMR912100	GellyPhor [®] HR	100 g

Storage and Stability 5 years at Room Temperature **Shipping** Room Temperature

GellyPhor[®] PFGE

GellyPhor® PFGE is a very high gel strength, low EEO, standard gelling temperature agarose. Due to its high gel strength, this agarose can be used for the preparation of low percentage gels for the analysis not only of high molecular weight nucleic acids (such as chromosomes), but also of large-sized particles such as viruses and ribosomes.

Technical Specification

- Gelling Temperature (dynamic measurement in 1.5% solution): $\leq 36 \pm 1.5^{\circ}$ C Gel strength : ≥ 1600 g/cm2 (for a 1% gel), ≥ 3000 g/cm2 (for a 1.5% gel) EEO: < 0.13 (For

- Moisture: ≤ 7%
- Melting Temperature (1.5%): ≤ 1.5°C
 RNase/DNase Activity: Not detected

Ordering information

Cat. Num.	Description	Size
EMR916100	GellyPhor® PFGE	100 g

Storage and Stability 5 years at Room Temperature

Shipping Room Temperature

Reagents for nucleic acids electrophoresis

Gel Staining

EuroSafe - Nucleic Acid Stain

EuroSafe Nucleic Acid Staining Solution (20,000x) is a safe nucleic acid stain, alternative to the traditional ethidium bromide (EtBr) staining for the detection of nucleic acid in agarose gels. It emits green fluorescence when bound to DNA or RNA. This stain has two fluorescence excitation maxima when bound to nucleic acid, one centered at 309 nm and another at 419 nm. In addition, it has one visible excitation at 514 nm. The fluorescence emission of EuroSafe bound to DNA is centered at 537 nm. EuroSafe is as sensitive as EtBr. Compared to EtBr, known as a strong mutagen, it causes much fewer mutations in the Ames test. In addition, EuroSafe Nucleic Acid Staining Solution (20,000x) has a negative result in mouse marrow chromophilous erythrocyte micronucleus test and mouse spermary spermatocyte chromosomal aberration test.

Features

- Used for detecting DNA e RNA
- Alternative to the ethidium bromide staining
- As sensitive as EtBr or more sensitive than that
- Less mutagenic than EtBr

Ordering information

Cat. Num.	Description	Size
EMR440001	EuroSafe	1 ml

Storage and Stability 5 years at Room Temperature

Shipping Room Temperature

DNA Ladders

Euroclone has three different DNA Ladders for sizing and approximate quantification of double-stranded DNA fragments such us PCR or restriction digestion products. The ladders have extremely sharp bands and reference bands with higher DNA content for easy orientation. They are designed to show virtually uniform spacing over a wide fragment range.

Features

- It is possible to approximate the mass of DNA in comparably intense samples of similar size
- No extraneous high molecular weight bands
- Value load only 5 μl/lane
- · Easy-to-identify reference bands

SharpMass[™] 50 plus



2% TAE agarose gel

SharpMass[™] 100



SharpMass[™] 1 kb plus



1% TAE agarose gel

SharpMass[™] 50 plus Ready-To-Load DNA Ladder

SharpMass[™] 50 plus Ready-to-load DNA Ladder consists of 17 DNA fragments ranging from 50 bp to 1.5 kb. The 500, 1000, 1200 and the 1500 pair fragments have enhanced brightness and can be used as reference points. The fragment mix is supplied in ready-to-use format bromophenol blue & xylene cyanol FF as tracking dye.

SharpMass[™] 100 Ready-To-Load DNA Ladder

SharpMass[™] 100 Ready-to-load DNA Ladder consists of 11 DNA fragments ranging from 100 bp to 1.5 kb. The 500 and the 1500 base pair fragments have enhanced brightness and can be used as reference points. The fragment mix is supplied in ready-to-use format containing orange and blue tracking dyes.

SharpMass[™]1 kb plus Ready-To-Load DNA Ladder

SharpMass[™] 1 kb plus Ready-to-load DNA Ladder consists of 13 DNA fragments ranging from 0,10 kb to 10 kb. The 1000 bp and the 3000 bp base pair fragments have enhanced brightness and can be used as reference points. The fragment mix is supplied in ready-to-use format containing bromo-phenol blue and xylene cyanol FF tracking dyes.

Ordering information

Cat. Num.	Description	Size
EMR817100	SharpMass [™] 50 plus - Ready-to-load DNA Ladder	100 lanes
EMR814100	SharpMass [™] 100 - Ready-to-load DNA Ladder	100 lanes
EMR816100	SharpMass™1 kb plus - Ready-to-load DNA Ladder	100 lanes

Storage and Stability 24 months at -20°C Shipping Blue Ice

RELATED PRODUCTS

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PROTEINS QUANTITATION, ELECTROPHORESIS AND WESTERN BLOTTING

The study of proteins' expression and of their role in cells is one of the main goals in every research program. Our essential products for protein research cover proteins quantitation, electrophoresis and Western Blotting offering reliability, efficiency and reproducibility.

Protein Quantitation

Euroclone protein assay kits are based on the use of bicinchoninic acid (BCA) for the rapid and sensitive detection and quantitation of total protein content. The BCA method is faster and easier than Lowry, with much greater tolerance to interference from non-ionic detergents and buffer salts.

The BCA method combines the biuret reaction, i.e. the reduction of Cu^{2+} ions to Cu^{+} by proteins in an alkaline medium with complexation of the latter with bicinchoninic acid. The purple-colored Cu-BCA complex displays a strong absorbance at 562 nm which is proportional to protein concentration over a broad working range (20-2.000 µg/ml for Quantum Protein and 0.5-20 µg/ml for Quantum Micro Protein).

Protein concentrations are generally determined with reference to standards of a common protein such as Bovine Serum Albumin (BSA). If a more accurate quantitation of an unknown protein is required, the calibration curve has to be constructed using a protein similar to the unknown one.

Quantum Protein & Quantum Micro Protein Assays

Features

- Easy to use
- Compatible with most common ionic and non-ionic detergents
- Faster than Lowry method
- Linear working range from 20-2.000 μg/ml (BCA) or 0.5-20 μg/ml (micro BCA)
- Working solution extremely stable
- · Protocol flexibility to increase the sensitivity of the assay
- · Cuvette or microplate format

Ordering information

Cat. Num. Description Size EMP014250 QuantumProtein Bicinchoninic Protein Assay Kit (Linear working range 20-2000 µg/ml) 250 tube assays EMP014500 QuantumProtein Bicinchoninic Protein Assay Kit (Linear working range 20-2000 µg/ml) 500 tube assays EMP015480 QuantumMicroProtein Bicinchoninic Protein Assay Kit for dilute samples (Linear working range 0.5-20 µg/ml) 480 tube assays

Storage and Stability 1 year at Room Temperature Shipping Room Temperature

Protocol at a glance (Quantum Protein)

- Prepare working solution (reagent A plus B ratio 5:1)
- \checkmark Add 2 ml working reagent to 100 μ l sample
- Incubate 30 min at 37°C
- 🗸 Read at 562 nm

Protein Molecular Weight Markers

Prestained SharpMass[™] VI and VII are designed for monitoring protein separation during SDS-polyacrylamide gel electrophoresis, verification of Western blot transfer efficiency on membranes (PVDF, nylon, or nitrocellulose) and for approximating the protein size. Markers are supplied in gel loading buffer and are ready to use: no need of heating, diluting, adding reducing agent before loading.

Features

- Ready-to-load
- Broad range of bands
- Colored reference bands
- Stable at Room Temperature for up to 2 weeks

Prestained Protein SharpMass[™] VI

Prestained Protein SharpMass[™] VI is a three-color protein standard with 13 pre-stained proteins covering a wide range molecular weights from 5 to 245 kDa when separated on SDS-PAGE (Tris-glycine buffer). Proteins are covalently coupled with a blue chromophore except for two reference bands (one green and one red band at 25 kDa and 75 kDa respectively).

Prestained Protein SharpMass[™] VII

Prestained Protein SharpMass[™] VII is a three-color protein standard with 10 pre-stained proteins covering a wide range molecular weights from 6,5 kDa to 270 kDa when separated on SDS-PAGE (Tris-glycine buffer). Proteins are covalently coupled with a blue chromophore except for three reference bands (two orange bands at 30 kDa and 270 kDa and one green band at 52 kDa).



Bands pattern of prestained protein SharpMass[™] VI and SharpMass[™] VII in 20% Tris-Glycine SDS-Page.

Ordering information

Cat. Num.	Description	Size
EPS025500	Prestained Protein SharpMass [™] VI	500 μl
EPS026500	Prestained Protein SharpMass [™] VII	500 μΙ

Storage and Stability Up to 2 weeks at RT. Up to 3 months at 4°C. 24 months at -20°C. Shipping Blue ice

Chemiluminescent Substrates for Western Blotting

Euroclone offers a complete range of chemiluminescent substrates to satisfy any need in terms of reliability, sensitivity and signal duration. In addition, all chemicals contained in these substrates have been carefully selected for safety: none of the components has been reported to be hazardous to human health.

	ECL One Star Cat. EMP001005	LiteUP Cat. EMP002005	LiteAblot EXTEND Cat. EMP013001	LiteAblot TURBO Cat. EMP012001
Signal Intensity	\	**	* *	***
Sensitivity	Picograms	Picograms to mid femtograms	Mid femtograms	Low femtograms
Signal Duration	Up to 3 hrs	Up to 4 hrs	24 hrs	8 hrs
Volume	250 ml	250 ml + 250 ml	50 ml + 50 ml	50 ml + 50 ml
Recommended Antibodies dilutions (1 mg/ml stock solution)	Primary Ab: 1/100-1/5000 Secondary Ab: 1/1000-1/15000	Primary Ab: 1/1000-1/15000 Secondary Ab: 1/25000-1/150000	Primary Ab: 1/1000-1/50.000 Secondary Ab: 1/50000-1/250000	Primary Ab: 10-200 ng/ml Secondary Ab: 1/100000-1/500000

ECL One Star Enhanced Chemiluminescent Substrate

ECL One Star is a new "ready to use" ONE component solution, a non-radioactive light emitting substrate for the detection of picograms amounts of immobilized specific antigens, conjugated directly or indirectly with horseradish peroxidase HRP-labelled antibodies. It is an excellent chemiluminescent reagent for daily routine Western Blot analysis.

Features

- Luminol/Enhancer/Peroxide buffer premixed and ready to use
- · Optimized sensitivity
- · Low Background: high signal-to-noise ratio
- Signal duration up to 3 hours



Actin protein expression in a serial dilution of HeLa cells lysate was detected by Western blotting. Image acquisition by imager, exposure time of 60 seconds. ECL Star enhanced chemiluminescent substrate shows a high signal intensity and low background, allowing to achieve better performance than other competitors.

Ordering information

Cat. Num.	Description	Size		
EMP003250	ECL One Star Enhanced Chemiluminescent Substrate	250 ml (2500 cm ²)		
Storage and Stability Shipping Room Temp	1 year at room temperature erature			

LiteUP WB Chemiluminescent Substrate

LiteUP WB Cheminumilescent Substrate is a two-component, a non-radioactive light emitting substrate for the detection of amounts ranging from picograms to mid-femtograms of immobilized specific antigens, conjugated directly or indirectly with HRP-labelled antibodies. It gives optimal performances when the Western Blot needs a high and stable signal intensity and a good sensitivity on medium expressed proteins.



Ordering information

Cat. Num.	Description	Size
EMP002005	LiteUP WB Cheminumilescent Substrate	250 ml + 250 ml (5000 cm ²)

Storage and Stability 1 year at room temperature

Shipping Room Temperature

LiteAblot[®] EXTEND - Long Lasting Chemiluminescent Substrate

LiteAblot[®] EXTEND is two-components substrate and has been specifically formulated to provide an intense and extremely stable chemiluminescent signal. For this reason, this product is particularly suggested to customers using imaging systems based on cooled charge coupled device (CCD) technology. Considering the high sensitivity of this substrate compared to standard "ECL-like" products, it can be necessary to dilute primary and secondary antibodies much further.

Features

- · Excellent sensitivity
- Long lasting signal, stable up to 24 hours

LiteAblot Extend Chemiluminescent Substrate Outstanding Intensity and Signal Duration										
٠	•	•	•	•	•	•	٠	٠	٠	
0h	1h	2h	3h	4h	5h	6h	7h	8h	24h	

Images of a 50 pg dot blot incubated 5 minutes with LiteAblot[®] EXTEND.

The signal has been captured with a NighOwl Luminograph (Berthold T-echnologies). Readings were taken at the indicated times after incubation, with an exposure time of 10 minutes, except for the last reading (1 hour).

Ordering information

Cat. Num.	Description	Size
EMP013001	LiteAblot [®] EXTEND	50 ml + 50 ml (1000 cm ²)

Storage and Stability 1 year at 4°C Shipping Room Temperature

LiteAblot® TURBO - Extra Sensitive Chemiluminescent Substrate

LiteAblot[®] TURBO is Euroclone's chemiluminescent substrate with the highest sensitivity allowing the detection of very low amounts of proteins. It is a two-components reagent. Due to the extreme sensitivity of the substrate it is critical to optimize the primary and secondary antibody dilutions and the exposure times.

Features Maximal sensitivity Detection of low abundant proteins Signal stable up to 8 hours Competitor G

Analysis of actin expression in a serial dilution of HeLa cell lysate. Film exposure time 60 seconds.

Ordering information

Cat. Num.	Description	Size
EMP012001	LiteAblot [®] TURBO	50 ml + 50 ml (1000 cm ²)

Storage and Stability 1 year at 4°C Shipping Room Temperature

Stripping

StripAblot Stripping Buffer

StripAblot is a ready-to-use buffer for the efficient stripping of Nitrocellulose and PVDF membranes probed by Western blotting procedures and detected by chemiluminescent or other non-precipitating substrates. StripAblot Buffer is a robust but gentle formulation for stripping primary and secondary antibodies from blots to enable several reprobings on the same membrane.

Features

- Ready-to- use
- Rapid protocol (5-15 minutes)
- Mercaptoethanol free

Ordering information

Cat. Num.	Description	Size
EMP100500	StripAblot	500 ml

Storage and Stability 1 year at RT or 4°C

Shipping Room Temperature

PLASTIC FOR MOLECULAR BIOLOGY

PCR, Real Time PCR and sequencing techniques require high quality plates, strips and sealings.

Euroclone PCR consumables are made for a variety of thermal cyclers, real-time PCR systems and sequencers for optimal cycling performing.

Manufacturing and Quality Control

All plastic consumables are madefrom high quality polypropylene and are manufactured in an ISO 9001-2015 certified production facility. Particles, bacterial cells and other contaminants are filtered from the atmosphere. Products undergo a wide range of QC inspections during and after the production process. Visual and biological tests ensure both the absence of contaminants and the integrity of quantitative PCR. In particular, the absence of nucleases (DNases and RNases), pyrogens and human genomic DNA is verified by functional QC. LAL-assay are used to test raw materials and finished products for the presence of endotoxins.

Plastic for molecular biology

Primo® Eco-Logik Single Channel Mechanical Pipette

- · High quality devices to guarantee maximum precision and reproducibility of measurement
- Compatible with most tips on the market
- Color coded to quickly identify the pipette
- Fully autoclavable
- Very light and ergonomic
- Light touch for ejection and aspiration of the liquid
- Lock volume button for aspiration
- Overload indicator
- · Presence of a double seal for ultra small volumes
- STAND for up to 5 pipettes



Primo[®] Filter Tips

Filter Tips are the ideal choice for all applications that require maximum precision. Low retention pipette tips have an ultra-smooth inner surface, which increases the hydrophobicity of the surface to minimize sample binding. This features is achieved thanks to the resin (virgin polypropylene of high purity) and the high quality molds used in the production process. Filter Tips are manufactured in a clean room facility filter tips are certified free of RNase, DNase and pyrogen. This makes them particularly suitable for particularly sensitive samples and critical applications in the field of molecular biology.



Primo[®] Tubes, Strips, Foils and Plates

- Made from high-quality polypropylene and manufactured in an ISO 9001:2015 certified production facility
- Free from DNA, RNA, DNases, RNase, pyrogens and PCR inhibitors to ensure accurate and consistent performance
- · Available in multiple skirt options
- · Frosted and white plates designed to enhance signal-to-noise ratios
- · Compatible with the most used devices on in the market



For more information, you can download our new catalog Cell Culture Plasticware

Services

Our services are designed to support the daily activities of researchers, offering flexible and customized solutions to meet the specific needs of our clients.

Stockroom

Stockroom is a storage system for products distributed by Euroclone, located directly at facilities such as universities or hospitals. Researchers can easily access items, taking what they need. Each month, a summary of withdrawals is provided, and the corresponding order is processed, with stocks levels automatically replenished based on actual consumption. The list of available products is fully customizable and can be modified at any time.

My Smart Orders

The **My Smart Orders** service allows customers to place orders online through a dedicated portal, simplifying the purchasing process and ensuring compliance with MEPA (Electronic Market of Public Administration) requirements. Customers can benefit from personalized annual conditions and offers. The ordering procedure is adaptable to the specific needs of each client.

Annual Orders

Annual orders with planned delivery scheduling prevent issues and delays, ensuring the customer a consistent and timely supply of products in the required quantities and timeframes.

Technical Sales Specialist

Euroclone specialists offer direct support throughout Italy for both Euroclone-branded and distributed products, providing:

- ✓ Pre- and post-sales technical consultancy
- ✓ Instrument installation
- ✓ Training on instrument use
- ✓ Technical and practical demonstrations
- ✓ Scientific support

Technical Sales Assistant

The in-house technical assistant manages all pre- and post-sales needs, offering:

- \checkmark Technical information
- \checkmark Request management in collaboration with supplier's technical support
- \checkmark Technical support for optimizing the use of consumables

Contacts: tsa@euroclone.it / 800-315911

Quality

The in vitro diagnostic medical devices we market comply with European Regulation 2017/746/EU. Euroclone-branded products are sold in Europe and non-European countries, in accordance with international regulations, including the DUAL USE regulation. Euroclone is a supplier for companies in the Biotech - Pharma area operating in GMP, ensuring FFM products in compliance with specific quality technical agreements defined with customers.

Certifications

UNI EN ISO 9001: Development, production, and marketing of products and consumables for cytogenetics, cell biology, and molecular biology. Marketing and technical assistance of equipment, products, and consumables for the medical, biotechnological (cell biology, molecular biology, immunology, proteomics, NGS), and contamination control sectors.

UNI EN ISO 13485: Design, development, production, technical assistance, and marketing of in vitro diagnostics. Marketing of medical devices.

UNI EN ISO 14001: Marketing and technical assistance of equipment, products, and consumables for the medical, biotechnological, diagnostic (cytogenetics, cell biology, molecular biology, immunology, proteomics, NGS), and contamination control sectors.

MOLECULAR BIOLOGY



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 Cellulari
- Produzione Proteine Ricombinanti
- Drug Discovery



Some of the brands mentioned in the guides are available through Euroclone only in Italy.



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