

Molecular Biology



The background is a solid orange color. There are two large, abstract, rounded shapes in a darker shade of orange. One is a diagonal bar in the upper right quadrant, and the other is a wide, curved shape at the bottom of the page.

SERVING SCIENCE
THROUGH
INNOVATION

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 four 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.

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

In 2019 Euroclone has been acquired by AddLife AB becoming part of an important international group. This step ensures 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.

INDEX

INTRODUCTION	6
1. Nucleic Acids Isolation Systems	8
Nucleic Acids Isolation Systems	10
2. Polymerases and Amplification	14
PCR	16
qPCR	17
RT-PCR	18
Reagents	19
3. Nucleic Acids Electrophoresis	22
Agaroses	24
Reagents for nucleic acids electrophoresis	27
4. Proteins Quantitation, Electrophoresis and Western Blotting	30
Protein Quantitation	32
Protein Molecular Weight Markers	33
Transfer membranes for blotting applications	34
Chemiluminescent Substrates for Western Blotting	36
Stripping	39
Plastic for Molecular Biology	40
Services	41



INTRODUCTION

Molecular biology and proteomics are fundamental disciplines for understanding gene expression, cellular regulation, and disease mechanisms. Nucleic acid analysis techniques - extraction, PCR, qPCR, sequencing and hybridization-based assays - enable precise detection, quantification and characterization of DNA and RNA.

Complementary protein analysis methods, from Western blotting and immunodetection to proteomic profiling, provide insight into protein abundance, structure and function.

Euroclone's molecular biology and proteomics product portfolio offers reliable, easy-to-use core reagents designed for everyday use in research laboratories, ensuring consistent performance and reproducible results across a wide range of applications.

1

NUCLEIC ACIDS ISOLATION SYSTEMS

Nucleic Acids Isolation Systems

TriFast™ II - Nucleic Acids Isolation Reagent

TriFast™ 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
- Starting 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
- ✓ Addition 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

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**.

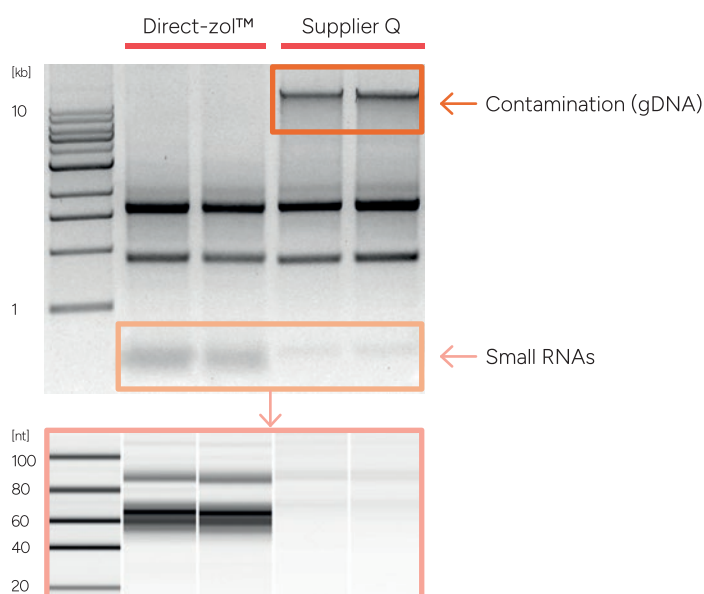
Obtained RNA is ultra-pure and NGS-ready; no phenol carryover or DNA contamination (DNase I included).

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



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.



Bind RNA directly to a Direct zol™ RNA Spin Column.

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

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

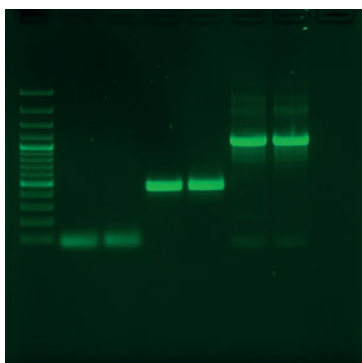
EuroSAP - PCR Enzymatic Clean-up kit

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

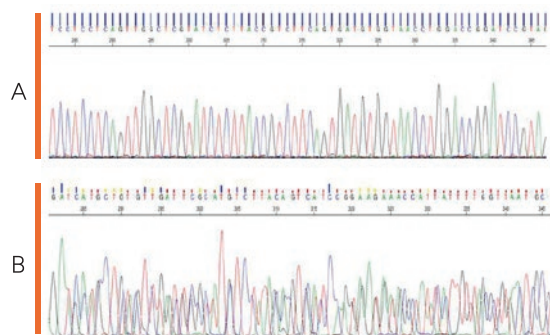
- Purification: DNA from PCR reaction mixes
- Format: Two reagents kit
- Starting materials: PCR reaction mixes
- Starting quantity: Scalable
- Protocol time: 15 min



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

PCR	pag. 16
qPCR	pag. 17
RT-PCR	pag. 18
Agaroses	pag. 24
DNA ladders	pag. 27

2

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.



PCR

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, MgCl₂ and enhancers, avoiding the need of optimizing the reaction conditions.

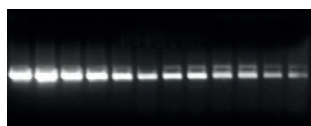
In the Hot Start version, the enzyme is complexed with a monoclonal antibody blocking the polymerase activity at room temperature and preventing non-specific amplification. Activation occurs at 70°C, during the first step of denaturation.

Features

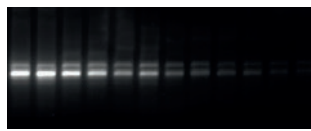
- Amplicon size: Up to 5 kb
- Resulting ends: A-tail
- Units per reaction (50 µl): 1.25 - 5
- Reaction Buffer 5X with dNTPs, MgCl₂ & enhancers

Applications

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

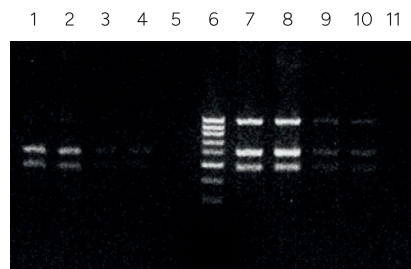


Wonder Taq



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 taq HS

Wonder Taq 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

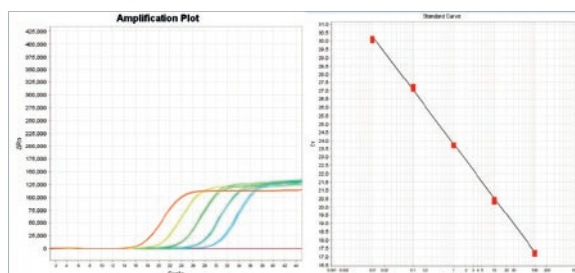
Euroclone qPCR master mixes are ready-to-use 2X solutions optimized for Real Time PCR. The master mixes include Wonder Taq Hot Start DNA polymerase and dNTPs in an optimized buffer.

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.

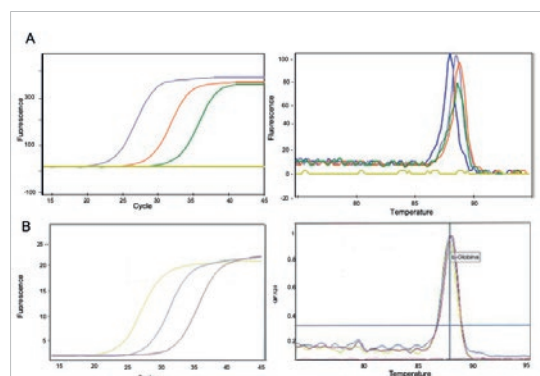
The Master Mix for Probe has been formulated for the detection of amplicon product with sequence specific fluorogenic probes. Primers, probe and template must be added before use.

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 μ l)
ERD002250BIM	FluoCycle II™ SYBR® Master Mix	500 rxn (reaction volume 25 μ l)

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 Centre Drive, Foster City, California 94404 USA.

RT-PCR

Wonder RT - cDNA Synthesis kit

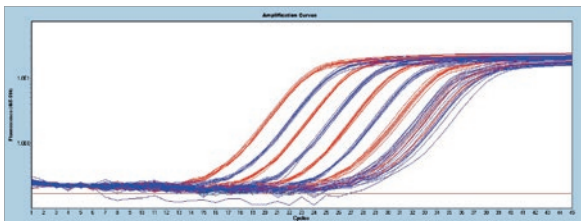
Wonder RT kit is a rapid and very sensitive method for first strand cDNA synthesis. It is a two-components system: 1) an extremely efficient reverse transcriptase allows highly robust first strand synthesis and higher cDNA yields from a wide range of input RNA concentrations; 2) a 5x Reaction Buffer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

Features

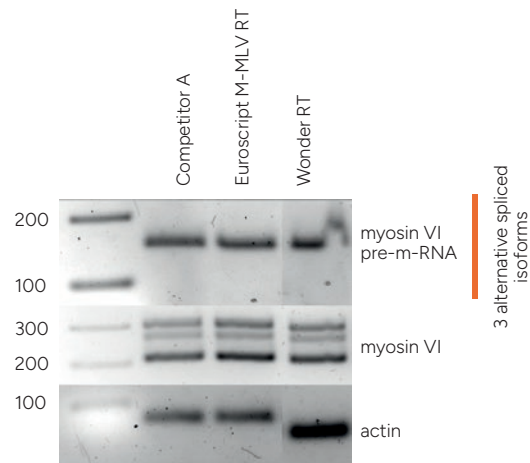
- Easy reaction set up: primers and dNTPs are included in the 5x Reaction Buffer Mix and RNase inhibitor is included in the Reverse Transcriptase Mix
- Unbiased: optimized mix of random hexamers and anchored oligo dT primers for full 5'–3' RNA coverage
- Fast: high-yield reverse transcription in 25 minutes
- 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 µl 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- SO_4 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

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


Nucleic Acids Isolation Systems pag. 10 - 13

Agaroses pag. 24


DNA ladders pag. 27

3

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	-	-	-	-	-	✓
DNA/RNA separation ≤1 kb	✓	✓	-	✓	✓	-
DNA/RNA separation ≥1 kb	✓	✓	✓	-	-	✓
DNA separation 20-800 bp	-	-	-	✓	-	-
Blotting	✓	✓	-	-	✓	✓
DNA finger printing	✓	✓	-	-	-	-
Nucleic Acid Recovery	✓	✓	✓	✓	✓	✓

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 ± 1,5°C
- Moisture: ≤ 10%
- Gel strength (1%): ≥ 1200 g/cm²
- EEO: ≤ 0,13 (-Mr_r)
- 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: $\leq 0.1\%$
- Moisture: $\leq 8.5\%$
- 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 GellyPhor® 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: $\leq 0.12\%$
- Moisture: $\leq 7\%$
- 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: ≥ 600 g/cm² (for a 1.5% gel), ≥ 1500 g/cm² (for a 3% gel)
- EEO: ≤ 0.12 (-Mr_r)
- Sulphate: $\leq 0.11\%$
- Moisture: $\leq 7\%$
- Melting Temperature (3%): $\leq 80^\circ\text{C}$
- 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): $\leq 36 \pm 1.5^\circ\text{C}$
- Gel strength : ≥ 1600 g/cm² (for a 1% gel), ≥ 3000 g/cm² (for a 1.5% gel)
- EEO: < 0.13 (-Mr)
- Moisture: $\leq 7\%$
- Melting Temperature (1.5%): $\leq 1.5^\circ\text{C}$
- 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 Room temperature

Reagents for nucleic acids electrophoresis

Gel Staining

EuroSafe - Nucleic Acid Stain

EuroSafe Nucleic Acid Staining Solution (20,000x) is a safe alternative to ethidium bromide (EtBr) for detecting nucleic acids in agarose gels. It emits green fluorescence when bound to DNA or RNA, with two excitation maxima at 309 nm and 419 nm, and an additional visible excitation at 514 nm. When bound to DNA, its emission maximum is 537 nm. EuroSafe is as sensitive as EtBr but causes far fewer mutations in the Ames test and shows negative results in both the mouse marrow chromophilous erythrocyte micronucleus test and the 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

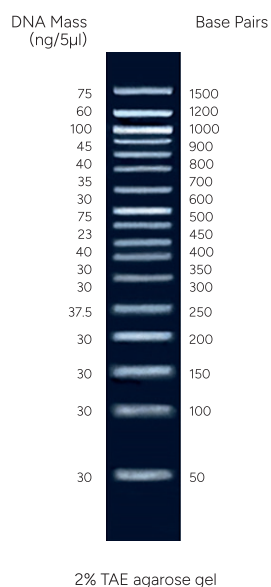
DNA Ladders

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

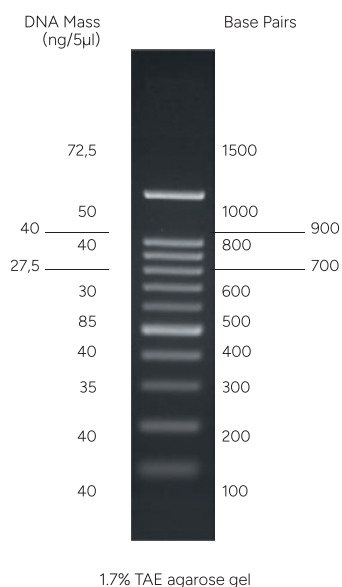
Features

- 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

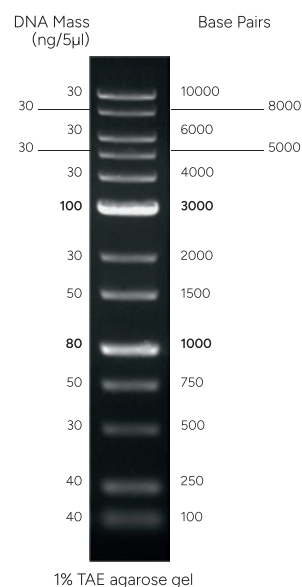
SharpMass™ 50 plus



SharpMass™ 100



SharpMass™ 1 kb plus



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 bromo-phenol 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

Nucleic Acids Isolation Systems pag. 10 - 13

PCR pag. 16

RT-PCR pag. 18

4

PROTEINS
QUANTITATION,
ELECTROPHORESIS
AND WESTERN
BLOTTING

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 $\mu\text{g}/\text{ml}$ for Quantum Protein and 0.5-20 $\mu\text{g}/\text{ml}$ 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 $\mu\text{g}/\text{ml}$ (BCA) or 0.5-20 $\mu\text{g}/\text{ml}$ (micro BCA)
- Working solution extremely stable
- Protocol flexibility to increase the sensitivity of the assay
- Cuvette or microplate format

Protocol at a glance (Quantum Protein)

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

Ordering information

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

Storage and Stability 1 year at room temperature

Shipping Room Room temperature

Protein Molecular Weight Markers

Prestained SharpMass™ VII and VIII 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™ 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).

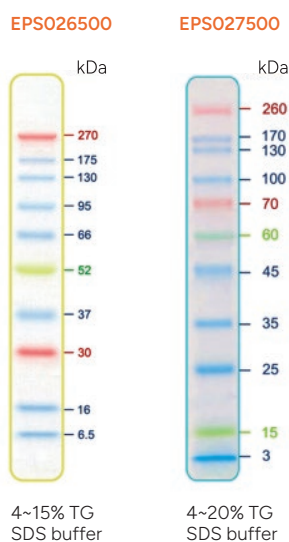
Proteins are covalently coupled with a blue chromophore except for three reference bands (two orange bands at 30 kDa and 270 kDa and one green band at 52 kDa).

NEW

Prestained Protein SharpMass™ VIII

Prestained Protein SHARPMASSTM VIII is a four-color protein standard with 11 pre-stained proteins covering a wide range of molecular weights, from 3 to 260 kDa, when separated on SDS-PAGE (Tris-glycine buffer).

Proteins are covalently coupled with a blue chromophore except for 4 bands with different colors: two RED bands at 70 kDa and 260 kDa respectively; a GREEN band at 15 kDa and a newly designed peacock GREEN band at 60 kDa.



Ordering information

Cat. Num.	Description	Size
EPS026500	Prestained Protein SharpMass™ VII (6,5-270kDa)	500 µl
EPS027500	Prestained Protein SharpMass™ VIII (3-260kDa)	500 µl

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

Shipping Blue ice

Transfer membranes for blotting applications

Transfer membranes are a critical component of blotting workflows, providing a solid support for the immobilization and detection of nucleic acids and proteins after electrophoretic separation. Available commonly in different materials and pore sizes, they offer optimized binding capacity, low background and mechanical stability to suit a wide range of applications, from Western blotting to classical DNA/RNA blotting and nucleic acid hybridization assays.

The choice of membrane type and porosity directly influences sensitivity, signal-to-noise ratio and reproducibility, making high quality transfer membranes essential for reliable analytical results.

NEW

ProteoBlot Transfer Membrane in nitrocellulose (NC)

Euroclone ProteoBlot NC transfer membrane is a pure, unsupported cellulose nitrate microporous membrane, which is used to transfer proteins and nucleic acids from various gel matrices.

The strong tensile strength of Euroclone NC transfer film makes it less likely to tear and crack compared to other brands of nitrocellulose films. This film has a high binding capacity for both proteins and nucleic acids, making it suitable for use in immunization and nucleic acid detection.

Features

- DNA/RNA and proteins retention: 80-100 µg/cm²
- Protein binding: 100-125 µg/cm²
- Very high sensitivity and low background
- No activation required
- Ideal for nucleic acid and protein transfer
- Available with 0,22 µm and 0,45 µm pore size
- 300x3000 mm (9000 cm²) Roll format

Ordering information

Cat. Num.	Description	Size (roll)
EMP100045	ProteoBlot NC 0.45 µm	300x3000 mm
EMP100020	ProteoBlot NC 0.22 µm	300x3000 mm

Storage and Stability 3 years at room temperature

Shipping Room Room temperature

ProteoBlot Transfer Membrane in nitrocellulose (NC)

Euroclone ProteoBlot PVDF transfer membrane is a polyvinylidene fluoride (PVDF) micro-porous membrane used to transfer proteins from various gel matrices; it has an excellent protein retention rate, high physical strength, and wide chemical compatibility, making it ideal for immunodetection.

Features

- DNA/RNA and proteins retention: 100-300 µg/cm²
- Protein binding: 200-300 µg/cm²
- High mechanical and thermal resistance, suitable for multiple stripping cycles
- Excellent sensitivity
- Fast activation with alcohol
- Optimal for protein transfer and the most demanding Western blots
- Available with 0,22 µm and 0,45 µm pore size
- 300x3000 mm (9000 cm²) Roll format

Ordering information

Cat. Num.	Description	Size (roll)
EMP200045	ProteoBlot PVDF 0.45 µm	300x3000 mm
EMP200020	ProteoBlot PVDF 0.22 µm	300x3000 mm

Storage and Stability 3 years at room temperature

Shipping Room Room temperature

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.

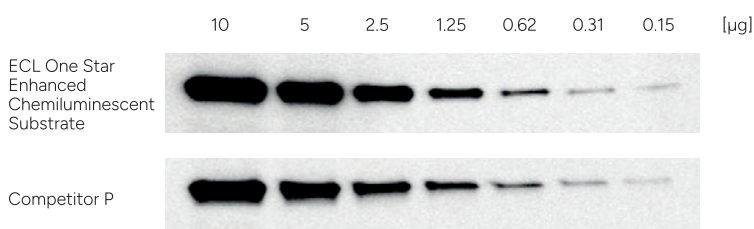
	ECL One Star Cat. EMP001005	LiteUP Cat. EMP002005	LiteAblot EXTEND Cat. EMP013001	LiteAblot TURBO Cat. EMP012001
Signal Intensity				
Sensitivity	Picograms	Picograms to mid femtograms	Mid femtograms	Low femtograms
Signal Duration	Up to 3 hrs	Up to 4 hrs	24 hrs	8 hrs
Volume	250 ml	250 ml + 250 ml	50 ml + 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 1 year at room temperature

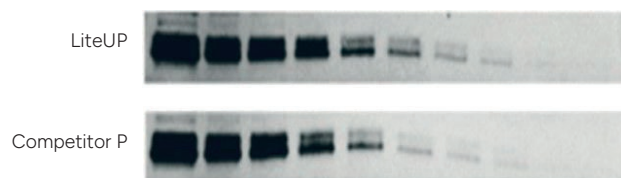
Shipping Room Room temperature

LiteUP WB Chemiluminescent Substrate

LiteUP WB Chemiluminescent 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.

Features

- High signal-to-noise ratio
- Storage at Room Temperature
- Working solution stable up to 3 days
- Signal duration up to 4 hours
- Cost-effective



Analysis of MAP kinase expression (ERK 1/2) in a serial dilution of HeLa cell lysate; image acquisition by imager; exposure time of 120 seconds.

Ordering information

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

Storage and Stability 1 year at room temperature

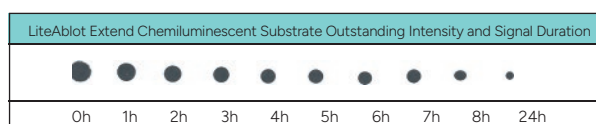
Shipping Room Room temperature

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



Images of a 50 pg dot blot incubated 5 minutes with LiteAblot® EXTEND. The signal has been captured with a NighOwl Luminograph (Berthold Technologies). 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

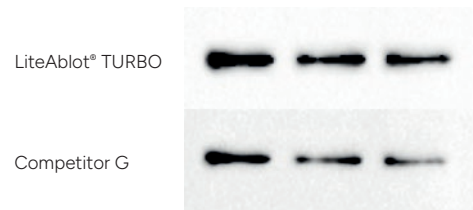
Shipping Room Room temperature

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



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 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 Room temperature

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 feature 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 Primo® 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.

Technical Sales Assistant

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

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

Contacts: tsa@euroclone.it / 800-315911

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

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.

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. *Service available in Italy only.*

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. *Service available in Italy only.*

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. *Service available in Italy only.*



Euroclone SpA
Via Figino, 20/22
20016 Pero (MI) Italy

Tel. +39 02 381951
Fax +39 02 33913713

info@euroclone.it
www.euroclone.it