

# BIONORDIKA BASICS

Agarose • Water • dNTP mix • XOZap • Cell culture media and reagents





# Molecular biology

## Standard agarose, type LE

A standard agarose, type LE, ideal for fast routine separation of DNA and RNA fragments

- Easy dissolution and fast gelling
- Excellent transparency and low background staining, which provides clear visibility of the bands
- Sharp, well-defined bands
- Very low DNA fixation



Product no	Product description	Size
BN-50004	Standard Agarose- Type LE	500 gram

## Water for molecular biology

This high quality Molecular Grade Water is suitable for use in molecular biology applications requiring high purity water, free from DNase and RNase.

- Sterile (0.2 µm filtration)
- Endotoxin level below 0.01 ng/ml
- DNA free, DNase-free, and RNase-free
- Free from PCR inhibitors



Product no	Product description	Size
BN-51100	Water for molecular biology	500 ml



## dNTP MIX, 10 mM

Deoxynucleotide (dNTP) premix is an ultrapure aqueous solution of 10 mM of each dNTP (dATP, dCTP, dGTP, dTTP) suitable for all molecular biology applications including PCR, qPCR, RT, DNA labeling and DNA sequencing.

For standard PCR applications a final concentration of 200  $\mu$ M each dNTP is recommended.

The dNTP Mix is tested for contamination with bacterial or human DNA as well as DNases, RNases and proteases



Product no	Product description	Sizes
BN-1006-08	dNTP Mix 10 mM	4 x 200 $\mu$ l
BN-1006-4	dNTP Mix 10 mM	5 x 800 $\mu$ l

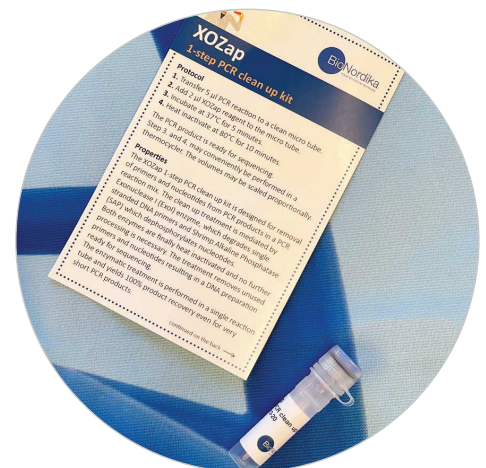
## DNA modifying enzymes

For DNA preparation, this 1-step PCR clean up kit is designed for removal of unused primers and nucleotides from PCR products in a PCR reaction mix.

The mix contains Exonuclease I (ExoI) that degrades single stranded DNA (ssDNA primers) and Shrimp Alkaline phosphatase (SAP) that dephosphorylates nucleotides. Both enzymes are heat inactivated at the end, and no further processing is required before sequencing.

The enzymes are supplied in the same tube, and the protocol is just 15 minutes.

Results in PCR product ready for sequencing (with 100 % product recovery even for very short PCR products).



Product no	Product description	Sizes
BN-1010-20	XOZap-1step PCR Clean up	20 reactions
BN-1010-100	XOZap-1step PCR Clean up	100 reactions
BN-1010-500	XOZap-1step PCR Clean up	500 reactions
BN-1010-2000	XOZap-1step PCR Clean up	2000 reactions



# Cell biology

## Basal media

Euroclone utilizes its state-of-the-art filtration and aseptic-filling technologies to manufacture its line of liquid media. All processes are thoroughly validated to ensure that the products meet quality standards and relevant guidelines. Euroclone media formulations are manufactured following original publications, standards set by the Tissue Culture Association and accepted formulations. Standard formulas are available in lot sizes up to 10000 liters for powder media, and up to 2000 liters for liquid media.

## Raw materials

Chemicals used to manufacture Euroclone liquid media, salt mixtures and reagents are of the highest purity commercially available. All chemicals conform, where applicable, to the published standards of the American Chemical Society (ACS), European Pharmacopeia (EP) or the United States Pharmacopeia (USP). Euroclone's quality assurance program includes in-coming raw material testing for identification and purity. Certificates of Analysis from vendors or manufacturers are required to support identity, purity, safety and performance claims. The water used for media preparation is the best WFI water, purified in several steps, including centrifugal distillation and tested for endotoxins. The water is always freshly processed and cooled down to 25°C before adding the powder media.



## Manufacturing methods, facilities and validation

Liquid products are membrane sterilized, through a 100 nm pore size sterile filter, and aseptically dispensed into Gamma-irradiated polyethylene (PETG) plastic bottles. All manufacturing processes and facilities are qualified and validated to ensure consistency and suitability for intended use. The intended use of Euroclone media and reagents for cell culture is for research applications, not for diagnostic or clinical use. It is the end user's responsibility to qualify these products for their specific application. The Euroclone Validation Group plans and supervises the qualification of key production equipment and production processes, following relevant current guidelines and ISO 9001 (2015).

## Biological performance

Euroclone products capability to promote cell growth is assessed in functional cell culture systems designed to replicate, as closely as possible, actual laboratory applications. Whenever possible, the cell lines and the technique employed in testing reflect the original or most common applications of the medium. The cell lines used in testing represent a selection of normal, transformed or hybrid cell lines with a diverse range of nutritional and metabolic requirements. The number of cell lines used may vary according to the medium being tested. Cell cultures are monitored for evidence of nutritional deficiency, cytotoxicity, or morphological aberrations indicative of toxic components in the product. Each product is tested in parallel with a validated control lot. Certain media are subjected to special application testing that includes growth promotion, plating efficiency and cloning efficiency.

## Microbiological testing

The liquid media are tested for sterility, pH and osmolarity. Sterility testing of liquid products is carried out according to the membrane filtration method as described in the USP and EP. pH is measured by standard techniques (20-25°C). Osmolarity is measured by freezing point method. Endotoxin testing is performed using the Limulus Amoebocyte test and is also by a Chromokinetic test.



Product no	Product description	Volume
Dulbecco's Modified Eagle's Medium, HIGH Glucose (DME/HIGH)		
BN-ECB7501L	DMEM High Glucose	500 ml
BN-ECM0728L	DMEM High Glucose with L-Glutamine	500 ml
BN-ECM0101L	DMEM High Glucose w/o Na Pyruvate	500 ml
BN-ECM0102L	DMEM High Glucose with L-Glutamine w/o Na Pyruvate	500 ml
BN-ECM0103L	DMEM High Glucose with stable L-Glutamine	500 ml
BN-ECB7504L	DMEM High Glucose, w/o Phenol Red	500 ml
Dulbecco's Modified Eagle's Medium, Low Glucose (DME/LOW)		
BN-ECM0749L	DMEM Low Glucose	500 ml
BN-ECM0070L	DMEM Low Glucose with 25 mM HEPES and L-Glutamine	500 ml
BN-ECM0060L	DMEM Low Glucose with L-Glutamine	500 ml
BN-ECM0066L	DMEM Low Glucose with stable L-Glutamine	500 ml
Dulbecco's MEM/F-12		
BN-ECM0090L	DMEM/F-12 (1:1)	500 ml
BN-ECM0095L	DMEM/F-12 (1:1) with 25 mM HEPES and L-Glutamine	500 ml
BN-ECM0096L	DMEM/F-12 (1:1) with 25 mM HEPES	500 ml
BN-ECM0097L	DMEM/F-12 (1:1) w Stable L-Glutamine	500 ml
Hams Nutrient Mixture F-10		
BN-ECB7503L	HAM'S F-10	500 ml
BN-ECM0140L	HAM'S F-10 with L-Glutamine	500 ml
Hams Nutrient Mixture F-12		
BN-ECB7502L	HAM'S F-12	500 ml
BN-ECM0135L	HAM'S F-12 with L-Glutamine	500 ml
Minimum Essential Medium (MEM)		
BN-ECB2071L	MEM with Earle's Salts	500 ml
BN-ECB2070L	MEM with Earle's Salts with L- Glutamine	500 ml
BN-ECM0445L	MEM with Earle's Salts, with 25 mM HEPES	500 ml
BN-ECM0430L	MEM with Earle's Salts with NEAA	500 ml
BN-ECM0909L	MEM with Hank's Salts	500 ml
BN-ECM0470L	MEM with Hank's Salts, with 25 mM HEPES	500 ml
BN-ECM0849L	MEM ALPHA MEDIUM w/o ribonucleosides	500 ml
BN-ECM0850L	MEM Alpha Medium, w Stable L-Glutamine w Deoxyribonucleosides & Ribonucleosides	500 ml
BN-ECB2069L	MEM Eagle (2x) with Earle's Salt, w/o Phenol Red	500 ml
Medium 199		
BN-ECB2056L	Medium 199 with Earle's salts	500 ml
BN-ECM0320L	MEDIUM 199 with Earle's Modified Salts with L-Glutamine and 1.25 g/l Sodium Bicarbonate	500 ml
BN-ECM0330L	Medium 199 with Hank's Salts and L-Glutamine	500 ml
RPMI 1640 Medium		
BN-ECB9006L	RPMI 1640 MEDIUM	500 ml
BN-ECB2000L	RPMI 1640 MEDIUM with L-Glutamine	500 ml
BN-ECM2001L	RPMI 1640 MEDIUM with stable L-Glutamine	500 ml
BN-ECM9106L	RPMI 1640 MEDIUM with 25 mM HEPES	500 ml
BN-ECM0495L	RPMI 1640 MEDIUM with 25 mM HEPES and L-Glutamine	500 ml
BN-ECM0505L	RPMI 1640 w/o Phenol Red	500 ml
BN-ECM0620L	RPMI 1640 MEDIUM w/o Folic Acid (FRAGILE X CHROMOSOME MODIFICATION)	500 ml
BN-ECB2055L	RPMI 1640 MEDIUM DUTCH MODIFICATION with 20 mM HEPES and 1 g/l Sodium Bicarbonate	500 ml

Product no	Product description	Volume
Iscove's Modified Dulbecco's Medium (IMDM)		
BN-ECM0192L	ISCOVE'S MODIFIED DULBECCO'S MEDIUM	500 ml
BN-ECB2072L	ISCOVE'S MODIFIED DULBECCO'S MEDIUM with 25 mM Hepes and L-Glutamine	500 ml
Mc Coy's 5A Medium		
BN-ECM0210L	Mc COY'S 5A MEDIUM with L-Glutamine	500 ml
Leibovitz L-15 Medium		
BN-ECB0020L	Leibovitz's L-15 Medium	500 ml
Euromed-N		
BN-ECM0883L	EuroMed-N	500 ml

Notes: when Medium contains L-Glutamine is reported "with L-Glutamine"; when Medium does not contain Phenol Red is reported "w/o Phenol Red"; multiple pack are available for several codes, please enquire.

## Salt solutions, reagents and supplements

### Salt solutions

Euroclone balanced salts are carefully manufactured with exacting care to ensure high quality and long-term stability. Balanced salts are a combination of inorganic salts and normally a carbohydrate. They act as buffer to protect cells from sharp fluctuations in pH while maintaining the proper osmotic pressure across the cell membrane. In a complete medium, combined with glucose or other carbohydrate, balanced salts are essential for the growth and maintenance of cells in culture, providing the principle energy source for cell metabolism.

Product no	Product description	Volume
Liquid 1X		
BN-ECB4055L	EARLE'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium	500 ml
BN-ECB4006L	HANK'S BALANCED SALTS SOLUTION w/o Na Bicarbonate	500 ml
BN-ECB4007L	HANK'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium	500 ml
BN-ECM0507L	HANK'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium & Phenol Red	500 ml
BN-ECB5004L	Phosphate Buffered Saline w/o Calcium & Magnesium	500 ml
BN-ECB4053L	Dulbecco's Phosphate Buffered Saline	500 ml
BN-ECB4004L	Dulbecco's Phosphate Buffer Saline w/o Calcium w/o Magnesium	500 ml
Liquid 10X		
BN-ECM4055XL	EARLE'S BALANCED SALTS SOLUTION w/o Calcium & Magnesium 10X	500 ml
BN-ECM4006XL	ECM4006XL HANK'S BALANCED SALTS SOLUTION w/o Na Bicarbonate 10X	500 ml
BN-ECM4053XL	PHOSPHATE BUFFERED SALINE 10X	500 ml
BN-ECM4004XL	PHOSPHATE BUFFERED SALINE w/o Calcium & Magnesium 10X	500 ml

### Cell Dissociation Reagents

When anchorage-dependent cultured cells reach high density or saturate the surface of the culture vessel, they undergo growth arrest and it is therefore necessary to detach them from their substrate. They have to be splitted into several subcultures, at cell concentrations that may vary according to the particular cell type. When manipulating a cell culture whose behaviour is unpredictable, it is worth not diluting them to a factor higher than 1:3 (distributing the total number of cells in a surface 3 times higher) during the early passages.

Product no	Product description	Volume
BN-ECB3052D	Trypsin 0.05%- EDTA 0.02% in PBS w/o Ca, Mg and Phenol Red Liquid – frozen	100 ml
BN-ECM0920D	Trypsin 0.05%- EDTA 0.02% with Phenol Red Liquid – frozen	100 ml
BN-ECB3051D	Trypsin 2.5% (w/v) in HBSS w/o Ca & Mg and Phenol Red Liquid – frozen	100 ml
BN-ECB3056D	Accutase® gentle solution for cell detachment	100 ml
BN-ECB3053D	Recombinant Trypsin-EDTA 1X in PBS w/o Calcium w/o Magnesium w/o Phenol Red	100 ml



**Aminoacids & vitamins**

Product no	Product description	Volume
BN-ECB3000D	L-Glutamine 100X (200 mM) Liquid – frozen	100 ml
BN-ECB3004D	Stable L-Glutamine 100X (200 mM) Liquid – frozen	100 ml
BN-ECB3003D	L-Glutamine with Penicillin/Streptomycin 100X Liquid – frozen	100 ml
BN-ECM0556D	MEM Vitamins Solution 100X Liquid – frozen	100 ml
BN-ECB3054D	Non-Essential Amino Acids 100X (NEAA) Liquid	100 ml

**Other reagents**

Product no	Product description	Volume
BN-EK0041B	Colcemid 10 µg/ml in PBS Liquid	10 ml
BN-ECM0970D	Distilled Water Sterile, Tissue Culture Tested Liquid	100 ml
BN-ECM0970L	Distilled Water Sterile, Tissue Culture Tested Liquid	500 ml
BN-ECM0180D	HEPES Buffer Solution 1M Liquid	100 ml
BN-ECM0180L	HEPES Buffer Solution 1M Liquid	500 ml
BN-ECM0543D	Potassium Chloride 0.075M Liquid	100 ml
BN-ECM0980D	Sodium Bicarbonate 7.5% Liquid	100 ml
BN-ECM0542D	Sodium Pyruvate 100 mM	100 ml
BN-ECM0030D	Erythrocyte Lysis Buffer	100 ml

**Antibiotics & Selection Agents**

Accidental contamination of a cell culture by bacteria, yeasts, fungi or mycoplasma leads to a rapid growth of the contaminating microorganism and to cell culture deterioration. To avoid this, all the handling procedures must be performed under aseptic conditions and usually a prophylactic use of antimicrobial agents is advantageous.

Product no	Product description	Volume
BN-ECM0009D	Amphotericin B (Fungizone) 250 µg/ml, Liquid – frozen	100 ml
BN-ECM0010D	Antibiotic/Antimycotic Solution 100X, 25 mg/l Amphotericin B, 10.000 U/ml penicillin, 10.000 mg/l streptomycin, Liquid – frozen	100 ml
BN-ECM0012B	Gentamycin Solution (50mg/ml), liquid-frozen	10 ml
BN-ECM0012D	Gentamycin Solution (50mg/ml), liquid-frozen	100 ml
BN-ECM0015C	G-418 (Geneticin) Solution (50 mg/ml), Liquid – frozen	20 ml
BN-ECM0015D	G-418 (Geneticin) Solution (50 mg/ml), Liquid – frozen	100 ml
BN-ECM0015K	G-418 Sulphate, Powder	10 gr
BN-ECM0011B	Gentamycin Solution (10 mg/ml), Liquid – frozen	10 ml
BN-ECM0011D	Gentamycin Solution (10 mg/ml), Liquid – frozen	100 ml
BN-ECB3001D	Penicillin/Streptomycin Solution 100X, 10.000 U/ml penicillin, 10.000 mg/l streptomycin, Liquid – frozen	100 ml

**Freezing Medium**

EuroMed II is a classical cryoprotective medium intended for cryogenic and preservation storage for standard cell lines. Freezing medium II contains DMSO which avoids destructive ice formation during freezing procedure and FBS to minimize dehydration effects and to improve viability of cells after thawing.

It is a ready-to-use solution which has been developed to preserve a wide variety of cell types during storage in liquid nitrogen.

Product no	Product description	Volume
BN-ECM0628N	EUROMED freezing II	50 ml

Contact BioNordika for detailed product information and more information.

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