1. Nucleic Acids Isolation Systems

- Kit components
- Isolation of RNA
- Isolation of genomic DNA
- Isolation systems for plasmid DNA
- Isolation of DNA from Gel, PCR reaction and general DNA Clean Up
EuroGold has a wide range of fully validated kits that have been developed for use with diverse starting materials to ensure fast isolation of highly purified nucleic acids. Kits are available in liquid solution, silica columns and gravity anion exchange column formats.

**Kit Components**

**Single Reagent** EuroGold single reagent kits are based on the combination of phenol and guanidium thiocyanate. Used in conjunction with chloroform and isopropanol phasic separation protocols, single reagent EuroGold kits are highly effective for the isolation of purified DNA and RNA.

**Standard protocol:**
- Homogenisation of starting material with Single Reagent
- Addition of chloroform, mixing and centrifugation
- RNA, DNA and proteins separate out into individual layers ready for isolation and precipitation using isopropanol
- Washing and re-solubilisation

**Perfect Bind® Silica Spin Columns**
Free from phenol and organic solvents, EuroGold Perfect Bind® Silica Spin Columns format, in conjunction with highly optimised Buffers, provides a rapid and familiar method for nucleic acid purification. By centrifuging the homogenised samples mixed in guanidium thiocyanate (GTC) through the high density silica matrix, nucleic acids are selectively captured while proteins, polysaccharides and other impurities pass through. After washing, nucleic acids are released and eluted ready for downstream applications.

**Perfect Bind® XChange Matrix Gravity Columns**
EuroGold Perfect Bind® XChange kits employ a modified alkaline/SDS lysis procedure to prepare the lysate for DNA purification. The addition of a neutralization Buffer causes chromosomal DNA precipitation while plasmid DNA remains in solution, revert to its native supercoiled structure and can bind to the anion-exchange resin. After washing, nucleic acids are released, precipitated in isopropanol and can be easily dissolved in TE Buffer for downstream applications.

**Isolation of RNA**

EuroClone offers four different EuroGold kits for the isolation of RNA: the single reagent format kit RNA Pure, Trifast, Perfect Bind® Silica Spin Columns format Total RNA kit and Blood RNA kit.

### Isolation Systems for total RNA

<table>
<thead>
<tr>
<th>Starting Material</th>
<th>Total RNA Kit</th>
<th>Blood RNA Kit</th>
<th>RNA Pure</th>
<th>Trifast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human and Animal (vertebrate) Material</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Tissues</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Cell Monolayers</td>
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<tr>
<td>Invertebrates</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Arthropods</td>
<td>✔️</td>
<td>-</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Molluscs</td>
<td>✔️</td>
<td>-</td>
<td>✔️</td>
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<tr>
<td>Round Worms</td>
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<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Coelenterates</td>
<td>✔️</td>
<td>-</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Other</td>
<td>✔️</td>
<td>-</td>
<td>(✔️)</td>
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<tr>
<td>Whole Blood</td>
<td>✔️</td>
<td>✔️</td>
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<tr>
<td>Fresh</td>
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<tr>
<td>Treated</td>
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</tr>
<tr>
<td>Fixed Tissues</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Formalin Fixed</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Paraffin Sections</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Plant Material</td>
<td>-</td>
<td>-</td>
<td>✔️</td>
<td>✔️</td>
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<td>Fungus</td>
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<td>✔️</td>
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<tr>
<td>Yeast</td>
<td>-</td>
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<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Bacteria</td>
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<td>✔️</td>
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<tr>
<td>Biological Liquids</td>
<td>-</td>
<td>✔️</td>
<td>-</td>
<td>(✔️)</td>
</tr>
</tbody>
</table>

**Legend:**
- ✔️ = very high performance
- (✔️) = suitable for use
- (✔️) = not suitable
EuroGold RNA Pure

**EuroGold RNA Pure** is a ready-to-use reagent for the efficient extraction of RNA from a wide variety of starting materials. Used in conjunction with chloroform extraction, the RNA Pure methodology has been demonstrated to provide high yields of reliably pure RNA for downstream applications. The RNA purified with RNA Pure is almost completely free from DNA and proteins and contains the entire spectrum of RNA molecules, including small RNAs.

**Features**

| Purification | RNA |
| Format       | Reagent + phenol/chloroform |
| Starting Material | Wide ranging |
| Starting Quantity | Scalable |
| Expected Yield | Up to 10 µg/mg tissue |
| Protocol time | 1 + hours |

**Protocol at-a-glance**

- Homogenisation and lysis of the sample with RNA Pure
- Centrifugation
- Addition of chloroform and RNA extraction from the upper phase
- Precipitation and washing
- RNA resuspension

**Expected Yields**

<table>
<thead>
<tr>
<th>Tissues</th>
<th>RNA</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>6-10 µg/mg</td>
<td>3-4 µg/mg</td>
</tr>
<tr>
<td>Spleen</td>
<td>6-10 µg/mg</td>
<td>3-4 µg/mg</td>
</tr>
<tr>
<td>Kidney</td>
<td>3-4 µg/mg</td>
<td>3-4 µg/mg</td>
</tr>
<tr>
<td>Skeletal Muscle</td>
<td>1-1.5 µg/mg</td>
<td>2-3 µg/mg</td>
</tr>
<tr>
<td>Brain</td>
<td>1-1.5 µg/mg</td>
<td>2-3 µg/mg</td>
</tr>
<tr>
<td>Placenta</td>
<td>1-4 µg/mg</td>
<td>2-3 µg/mg</td>
</tr>
</tbody>
</table>

**Storage and Stability**

- One year at 4 °C
- Shipping: Room Temperature

**Expected Yields**

<table>
<thead>
<tr>
<th>Cat.</th>
<th>Description</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMR506100</td>
<td>EuroGold RNA Pure</td>
<td>100 ml</td>
</tr>
<tr>
<td>EMR506200</td>
<td>EuroGold RNA Pure</td>
<td>200 ml</td>
</tr>
</tbody>
</table>

EuroGold Trifast

**EuroGold Trifast** is a ready-to-use reagent for the extraction of RNA, DNA and proteins from a wide variety of starting materials. Used in conjunction with chloroform extraction it allows the isolation of RNA, DNA and proteins from the same sample. The method for purifying nucleic acids does not exclude very small or very large species and it is therefore suitable for RNA studies of micro or mRNA species. Additionally this protocol produces high quality RNA suitable for applications such as dot blot hybridisation, Northern Blot, cDNA synthesis and RT-PCRs. DNA is suitable for use in Southern Blot, PCR and restriction enzymes digestions. The purified proteins can be used for Western Blot analysis.

**Features**

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

**Protocol at-a-glance**

- Homogenisation 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 ethanol/phenol phase
- Protein purification

**Expected Yields**

<table>
<thead>
<tr>
<th>Tissues</th>
<th>RNA</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>6-10 µg/mg</td>
<td>3-4 µg/mg</td>
</tr>
<tr>
<td>Spleen</td>
<td>6-10 µg/mg</td>
<td>3-4 µg/mg</td>
</tr>
<tr>
<td>Kidney</td>
<td>3-4 µg/mg</td>
<td>3-4 µg/mg</td>
</tr>
<tr>
<td>Skeletal Muscle</td>
<td>1-1.5 µg/mg</td>
<td>2-3 µg/mg</td>
</tr>
<tr>
<td>Brain</td>
<td>1-1.5 µg/mg</td>
<td>2-3 µg/mg</td>
</tr>
<tr>
<td>Placenta</td>
<td>1-4 µg/mg</td>
<td>2-3 µg/mg</td>
</tr>
</tbody>
</table>

**RNA and DNA from cell cultures**

<table>
<thead>
<tr>
<th>Cell Type</th>
<th>RNA</th>
<th>DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epithelial Cells</td>
<td>8-15 µg/10⁶ cells</td>
<td>5-7 µg/10⁶ cells</td>
</tr>
<tr>
<td>Fibroblasts</td>
<td>5-7 µg/10⁶ cells</td>
<td>5-7 µg/10⁶ cells</td>
</tr>
</tbody>
</table>

**Expected yields**

**Storage and Stability**

- One year at 4 °C
- Shipping: Room Temperature
EuroGold Total RNA

Using the Perfect Bind® Silica Spin Columns, EuroGold Total RNA Kit enables rapid isolation of high quality RNA from blood, eukaryotic cells and different tissues. This kit provides a rapid and efficient protocol for the isolation of RNA > 200 bases in length from a wide range of samples. The kit supplies Safety Line (S-Line) Perfect Bind® Silica Spin Columns with caps and reduced diameter openings for enhanced sample and user protection. The Shredder Columns supplied facilitate the additional homogenisation of the lysate to improve sample recovery.

**Features**

- **Purification**: Total RNA, fragments > 200 bases
- **Format**: Perfect Bind® Silica Spin Columns (S-Line)
- **Starting Material**: Blood, Eukaryotic cells or tissues
- **Starting Quantity**: 1 x 10^7 cells, 40 mg tissue
- **Maximum Yield**: Up to 100 µg/column
- **Protocol time**: < 25 min
- **Elution Volume**: 50-100 µl

**Protocol at-a-glance**

- Lysis of the sample in TRK lysis Buffer
- Removal of unwanted material through the Shredder Columns
- Addition of ethanol to the Shredder Column flow-through and loading on the Perfect Bind® Silica Spin Column
- Column washing
- Drying by centrifugation
- RNA elution

**Storage and Stability**

Two years at Room Temperature

**Shipping**

Room Temperature

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EuroGold Blood RNA Kit

EuroGold Blood RNA Kit is specifically designed for the isolation of total RNA from fresh and anti-coagulant treated blood, like citrate-dextrose, heparin or EDTA treated blood. The robust and effective protocol step separates erythrocytes from leukocytes and then through a process of RNase inactivation and purification using PerfectBind® silica columns, provides high quality RNA eluted in sterile RNase-free water, free from contaminating haemoglobin. The protocol is free from the use of organic solvents and provided in a simple and familiar spin column format enabling rapid processing of multiple samples.

**Features**

- **Purification**: RNA
- **Format**: PerfectBind® Silica Columns (S-Line)
- **Starting Material**: Fresh, frozen or anti-coagulant treated blood, plasma or serum
- **Starting Quantity**: 1 ml
- **Maximum Yield**: Up to 5 µg
- **Protocol time**: < 60 minutes
- **Elution Volume**: 50 – 100 µl

**Protocol at-a-glance**

- Mix of a pellet of leukocytes with Lysis Buffer ER
- Addition of RNA Lysis Buffer T to the washed pellet
- Removal of unwanted material through a PerfectBind Column
- Loading of the flow-through material on a PerfectBind Column
- Washing with RNA Buffer I and then with RNA Wash Buffer II
- Drying by centrifugation
- DNA elution

**Storage and Stability**

Two years at Room Temperature

**Shipping**

Room Temperature

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EuroGold Dnase I Digest Kit

EuroGold Dnase I Digest Kit is a highly effective method of eliminating unwanted DNA from mixtures of RNA and DNA. It has been developed for the implementation of an on-membrane DNase I digestion during RNA isolation using EuroGold RNA Isolation Kits.

**Features**

- **Application**: Recommended for use whenever the presence of DNA may affect experimental results, this kit is especially effective in RT-PCR studies
- **Enzyme concentration**: 20 Kunitz units/µl
- **Protocol time**: 20 minutes

**Storage and Stability**

One year at -20°C

**Shipping**

Blue Ice
**Isolation of genomic DNA**

EuroClone offers four different EuroGold kits for the isolation of genomic DNA. The single reagent format kit Trifast (see page 4) and the Perfect Bind® Silica Spin Columns format kits: Tissue DNA Mini Kit, Blood DNA Mini Kit and Plant DNA Mini Kit.

### Isolation Systems for total DNA

<table>
<thead>
<tr>
<th>Starting Material</th>
<th>Tissue DNA Mini Kit</th>
<th>Blood DNA Mini Kit</th>
<th>Plant DNA Mini Kit</th>
<th>TriFast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human and Animal Material</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Tissues</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Paraffin Fixed Materials</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Cell Cultures</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Whole Blood</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fresh</td>
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<td></td>
<td>✔</td>
</tr>
<tr>
<td>Anticoagulated Treated</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Frozen</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Dried</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Buffy Coat</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Serum</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Plasma</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Plant Material</td>
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<td>✔</td>
</tr>
<tr>
<td>Fungus</td>
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<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Bacteria</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Food of animal origin</td>
<td></td>
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<td></td>
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<tr>
<td>Biological Liquids</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

Legend: ✔ = very high performance (✔) = suitable for use - = not suitable

### Proteinase K

A powerful and widely used endopeptidase, EuroClone Proteinase K is commonly used for inactivating endogenous nucleases during nucleic acid isolation procedures. Proteinase K is certified RNase free and is available in either powder or liquid form.

<table>
<thead>
<tr>
<th>Cat.</th>
<th>Description</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMR022001</td>
<td>Proteinase K (20 mg/ml)</td>
<td>1 ml</td>
</tr>
<tr>
<td>EMR023100</td>
<td>Proteinase K powder</td>
<td>100 mg</td>
</tr>
<tr>
<td>EMR023500</td>
<td>Proteinase K powder</td>
<td>500 mg</td>
</tr>
</tbody>
</table>

**Storage and Stability** Two years -20 °C

**Shipping** Blue ice

### EuroGold Tissue DNA Mini

Effective on a wide range of tissue types and eukaryotic cells, the EuroGold Tissue DNA Mini Kit provides a quick and simple protocol for the isolation of highly purified DNA. The kit supplies Safety Line (S-Line) Perfect Bind® Silica Spin Columns with caps and reduced diameter openings for enhanced sample and user protection.

#### Features

- **Purification**: Genomic DNA
- **Format**: Perfect Bind® Silica Spin Columns (S-Line)
- **Starting Material**: Tissues or eukaryotic cells
- **Starting Quantity**: Up to 5 x 10⁶ cells, 40 mg tissue, 200 µl dried blood or 1 cm mouse tail
- **Maximum Yield**: Up to 30 µg/column
- **Protocol time**: < 30 min
- **Elution Volume**: 50-100 µl
- **Protocol at-a-glance (for tissues)**
  - Lysis of the sample in DNA Lysis Buffer T and Proteinase K at 55 °C
  - Addition of absolute ethanol and loading of the Perfect Bind® Silica Spin Column
  - Column washing
  - Drying by centrifugation
  - DNA elution

<table>
<thead>
<tr>
<th>Cat.</th>
<th>Description</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMRS03050</td>
<td>EuroGold Tissue DNA Mini Kit</td>
<td>50 columns</td>
</tr>
<tr>
<td>EMRS03200</td>
<td>EuroGold Tissue DNA Mini Kit</td>
<td>200 columns</td>
</tr>
</tbody>
</table>

**Storage and Stability** Two years at Room Temperature (Proteinase K at –20 °C)

**Shipping** Room Temperature (Proteinase K at 4 °C)
EuroGold Blood DNA Mini

EuroGold Blood DNA Mini Kit enables the isolation of DNA from 1 ml sample of fresh, frozen or anti-coagulated treated blood. Also efficient on serum, plasma or Buffy Coat samples, this system removes impurities including contaminating haemoglobin for effective downstream application use.

Designed for the extraction of DNA up to 60 kbp from human or non-human blood, this kit is suitable for processing multiple samples in the minimum of time.

With the use of Perfect Bind® Silica Spin Columns, the protocol first enzymatically degrades RNA and then effectively binds DNA, washing through inhibitors and other downstream contaminants including haemoglobin.

Features
- Purification: Genomic DNA
- Format: Perfect Bind® Silica Spin Columns (S-Line)
- Starting Material: Fresh, frozen or treated blood or serum, plasma or Buffy Coat samples
- Starting Quantity: 1 ml blood, serum or plasma samples, 250 μl of Buffy Coat, 1 x 10^7 leukocytes
- Maximum Yield: Up to 30 μg
- Protocol time: < 20 min
- Elution Volume: 100-400 μl

Protocol at-a-glance (for fresh blood)
- Mix of blood in BL Buffer and Proteinase K and incubation at 70 °C
- Addition of isopropanol and loading of the Perfect Bind® Silica Spin Column
- Column washing
- Drying by centrifugation
- DNA elution

Storage and Stability: Two years at Room Temperature (Proteinase K at –20 °C)
Shipping: Room Temperature (Proteinase K at +4 °C)

Cat. Description Format
EMR504050 EuroGold Blood DNA Mini Kit 50 columns
EMR504200 EuroGold Blood DNA Mini Kit 200 columns

EuroGold Plant DNA Mini Kit

EuroGold Plant DNA Mini Kit is specifically designed for a fast and efficient extraction of high purity nuclear, plastid, mitochondrial DNA from different types of plant tissues.

The kit allows the extraction of DNA up to 60 kbp efficiently without the use of alcohols or organic solvents.

Features
- Purification: Genomic DNA
- Format: PerfectBind® Silica Columns
- Starting Material: Plant material (cells, tissues, seeds)
- Starting Quantity: 0.1 g sample
- Maximum Yield: Up to 30 μg
- Protocol time: < 60 minutes
- Elution Volume: 50 – 100 μl

Protocol at-a-glance
- Mix homogenized tissue with Lysis Buffer PL1 and RNase A and incubation at 65°C
- Addition of Lysis Buffer PL2 and purification of the supernatant with microfilters
- Addition of DNA Binding Buffer and loading of the Perfect Bind® Silica Spin Column
- Column washing
- Drying by centrifugation
- DNA elution

Storage and Stability: Two years at Room Temperature (RNase A at 4°C)
Shipping: Room Temperature (RNase A at 4°C)

Cat. Description Format
EMR512050 EuroGold Plant DNA Mini Kit 50 columns
EMR512200 EuroGold Plant DNA Mini Kit 200 columns
Isolation Systems for Plasmid DNA

EuroClone has a complete range of optimised systems for mini to maxi preps that provide high quality yields and purity matched with rapid protocols and cost effective products. The kits selectively use Perfect Bind® Silica Spin Columns or Perfect Bind® Xchange matrix gravity columns. A kit for endotoxin-free DNA preparation is also available.

Features

<table>
<thead>
<tr>
<th>Kit</th>
<th>Plasmid Mini Kit</th>
<th>Plasmid Midi Kit</th>
<th>Plasmid Maxi Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format</td>
<td>Spin Columns</td>
<td>Gravity Flow Columns</td>
<td>Gravity Flow Columns</td>
</tr>
<tr>
<td>Starting Material</td>
<td>1-5 ml HC</td>
<td>5-30 ml HC</td>
<td>30-150 ml HC</td>
</tr>
<tr>
<td>Vector size</td>
<td>300 kbp</td>
<td>300 kbp</td>
<td>450-520 kbp</td>
</tr>
<tr>
<td>Typical Yield</td>
<td>2-25 µg</td>
<td>20-100 µg</td>
<td>450-520 µg</td>
</tr>
</tbody>
</table>

HC= High Copy Number plasmid
LC= Low Copy Number plasmid

EuroGold Plasmid Mini Kit

EuroGold Plasmid Mini Kit combines the power of Perfect Bind® Silica Spin Columns technology with the time tested consistency of alkaline-SDS lysis of bacterial cells to deliver high quality DNA. Plasmid DNA binds effectively to the silica membrane of the Perfect Bind® Silica Spin Columns and can easily be purified from contaminants and enzyme inhibitors. Purified plasmid DNA is simply eluted from the column in elution Buffer or water.

Features

| Purification | Plasmid DNA  |
| Format       | Alkaline lysis plus Perfect Bind® Silica Spin Columns (C-Line) |
| Starting Material | Bacterial culture |
| Starting Quantity | 1-5 ml overnight culture |
| Maximum Yield | Up to 25 µg |
| Protocol time | < 15 min |
| Elution Volume | 50-100 µl |

Protocol at-a-glance

Lysis of bacteria pellet in Solution I and II
Neutralization in Solution III
Centrifugation and loading of the supernatant on the Perfect Bind® Silica Spin Column
Column washing
Drying by centrifugation
DNA elution

Storage and Stability
Two years at Room Temperature (except for RNase A and completed Solution I that should be stored at 4 °C)
Shipping
Room Temperature (RNase A at +4 °C)

Cat. Description Format
EMR500050 EuroGold Plasmid Mini Kit 50 columns
EMR500200 EuroGold Plasmid Mini Kit 200 columns

EuroGold Plasmid MiniPrep Kit and a competitor MiniPrep Kit were used to purify plasmid DNA from 3 ml of Bacterial Cell Culture.
EuroGold XChange Plasmid Midi Kit

EuroGold XChange Plasmid Midi Kit combine the power of Perfect Bind® technology with the time-tested consistency of alkaline-SDS lysis of bacterial cells to deliver high quality DNA. Plasmid DNA binds effectively to the anion-exchange resin of the Perfect Bind® XChange column and can easily be purified from contaminants and enzyme inhibitors. The Perfect Bind® XChange Midi capacity is 100 µg.

Features

- Purification: Plasmid DNA
- Format: Alkaline lysis plus XChange Matrix Column
- Starting Material: Bacterial culture
- Starting Quantity: 5-30 ml overnight culture
- Protocol time: < 65 min
- Elution Volume: 5 ml

Protocol at-a-glance

- Lysis of bacteria pellet in Solution I and II
- Neutralization in Solution III
- Centrifugation and loading of the supernatant on the XChange Matrix Column pre-wet with Buffer EQ
- Column washing & elution
- Precipitation
- Washing & drying
- DNA re-suspension

EuroGold XChange Plasmid Maxi Kit

EuroGold XChange Plasmid Maxi Kit combines the power of Perfect Bind® technology with the time-tested consistency of alkaline-SDS lysis of bacterial cells to deliver high quality DNA. Plasmid DNA binds effectively to the anion-exchange resin of the Perfect Bind® XChange column and can easily be purified from contaminants and enzyme inhibitors. The Perfect Bind® XChange Maxi capacity is 100 µg.

Features

- Purification: Plasmid DNA
- Format: Alkaline lysis plus XChange Matrix Column
- Starting Material: Bacterial culture
- Starting Quantity: 30-150 ml overnight culture
- Protocol time: < 85/90 min
- Elution Volume: 15 ml

Protocol at-a-glance

- Lysis of bacteria pellet in Solution I and II
- Neutralization in Solution III
- Centrifugation and loading of the supernatant on the XChange Matrix Column pre-wet with Buffer EQ
- Column washing & elution
- Precipitation
- Washing & drying
- DNA re-suspension

Storage and Stability Two years at Room Temperature (except for RNase A and completed Solution I that should be stored at 4 °C)

Shipping Room Temperature (RNase A at +4 °C)
EuroGold XChange Plasmid Maxi EF Kit

The LPS molecules are extremely potent stimulator of the mammalian immune system, and a number of mechanisms exist to detect LPS and to respond to the presence of either this class of molecules or Gram-negative bacteria. LPS is a common contaminant of Plasmid DNA preparations grown in E.coli. The negative charges associated with lipid A and the inner core of LPS, cause the LPS molecules to behave like DNA on anion-exchange chromatograph resins.

For these reasons we developed EuroGold XChange Plasmid Maxi EF Kit that allows the isolation of high quality Endotoxin Free DNA. Due to the fact that the Buffer solutions are modified, the working procedure for endotoxin free plasmid preparation is identical to the standard protocol. The Perfect Bind® XChange Maxi EF capacity is 500 µg

Features

<table>
<thead>
<tr>
<th>Purification</th>
<th>Plasmid DNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format</td>
<td>Alkaline lysis plus XChange Matrix Column</td>
</tr>
<tr>
<td>Starting Material</td>
<td>Bacterial culture</td>
</tr>
<tr>
<td>Starting Quantity</td>
<td>30-150 ml overnight culture</td>
</tr>
<tr>
<td>Maximum Yield</td>
<td>Up to 500 µg</td>
</tr>
<tr>
<td>Protocol time</td>
<td>&lt; 80/90 min</td>
</tr>
<tr>
<td>Elution Volume</td>
<td>15 ml</td>
</tr>
</tbody>
</table>

Protocol at-a-glance

- Lysis of bacteria pellet in Solution I and II
- Neutralization in Solution III
- Centrifugation and Loading of the supernatant on the XChange Matrix Column pre-wet with Buffer EQ
- Column washing & elution
- Precipitation
- Washing & drying
- DNA re-suspension

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMRS10010</td>
<td>EuroGold Plasmid Maxi EF Kit</td>
<td>10 columns</td>
</tr>
<tr>
<td>EMRS10020</td>
<td>EuroGold Plasmid Maxi EF Kit</td>
<td>20 columns</td>
</tr>
</tbody>
</table>

Storage and Stability Two years at Room Temperature (except for RNase A and completed Solution I that should be stored at 4 °C)

Shipping Room Temperature (RNase A at +4 °C)
Isolation of DNA from Gel, PCR reactions and general DNA Clean-up

EuroClone offers two kits for the rapid isolation of DNA from gels or from reaction mixes such as PCR. The combination of highly optimised Buffers and Perfect Bind® Silica Spin Columns enables high yielding recovery of DNA with a very quick protocol. DNA is eluted in a low salt, ready-to-use solution, ideal for a wide range of downstream applications.

**DNA Isolation from Gels and Reaction Clean-Up**

<table>
<thead>
<tr>
<th>DNA Isolation from Gels</th>
<th>Gel Extraction Kit</th>
<th>Cycle Pure Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA from Gel</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DNA 50 bp to 40 kbp</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**EuroGold Gel Extraction Kit**

The EuroGold Gel Extraction Kit allows the recovery of up to 90% of DNA from 50 bp to 40 kbp in size with a 15 minutes spin column based protocol that does not require the use of organic solvents and precipitation steps.

**Features**

- Purification: Recovery of DNA from agarose gels
- Format: Perfect Bind® Silica Spin Columns (C-Line)
- Starting Material: DNA in agarose gel
- Starting Quantity: Up to 30 µg
- Maximum Yield: Up to 30 µg
- Protocol time: 15 min
- Elution Volume: 30-50 µl

**Protocol at-a-glance**

1. Mix of agarose slice with GP Binding Buffer and incubation at 55 °C
2. Addition of sodium acetate (if pH adjustment is required) and Loading of the Perfect Bind® Silica Spin Column
3. Column washing
4. Drying by centrifugation
5. DNA elution

**Cat.**

- EMR501050 EuroGold Gel Extraction Kit 50 columns
- EMR501200 EuroGold Gel Extraction Kit 200 columns

**Storage and Stability**

- Two years at Room Temperature
- Shipping: Room Temperature

**EuroGold CyclePure**

EuroGold CyclePure kit allows the isolation of DNA from PCR or other reaction mixes. With a quick and simple protocol you can recover up to 95% of DNA from 50 bp to 40 kbp in size, the kit removes free oligonucleotides, enzymes and contaminating salts. The eluted DNA is highly purified and ready for downstream applications.

**Features**

- Purification: Recovery of DNA from reaction mixes
- Format: Perfect Bind® Silica Spin Columns (C-Line)
- Starting Material: PCR or other reaction mixes containing DNA
- Starting Quantity: Scalable
- Maximum Yield: Up to 10 µg
- Protocol time: 15 min
- Elution Volume: 30-50 µl

**Protocol at-a-glance**

1. Mix of the reaction mix with CP Buffer
2. Loading of the Perfect Bind® Silica Spin Column
3. Column washing
4. Drying by centrifugation
5. DNA elution

**Cat.**

- EMR502050 EuroGold CyclePure Kit 50 columns
- EMR502200 EuroGold CyclePure Kit 200 columns

**Storage and Stability**

- Two years at Room Temperature
- Shipping: Room Temperature