

AmiPol 5 x Master Mix Ready to Load (RTL)

| Cat. No. | Pack Size | Conc. (MgCl ₂) |
|----------|----------------------|----------------------------|
| MTE0371 | 1 ml (250 reactions) | 7.5 mM |
| MTE0005 | 1 ml (250 reactions) | 12.5 mM |

For *in vitro* use only

Description:

AmiPol 5X Master Mix Ready to Load (RTL) is a premixed ready-to-use solution containing all reagents required for PCR (except template, primers and water), additional compound needed for direct loading onto agarose gel and two tracking dyes (blue and yellow) that allow to monitor progress during electrophoresis.

Applications:

- Suited for a wide range of PCR assays

Reagent Composition:

- **AmiPol DNA polymerase**
- **5 x MTE Buffer 3 with detergent**
0.4 M Tris-HCl, 0.1 M (NH₄)₂SO₄, 0.1% w/v Tween-20
- **7.5 mM MgCl₂ or 12.5 mM MgCl₂**
1 x PCR solution – 1.5 mM MgCl₂ or 2.5 mM MgCl₂
- **1 mM dNTPs of each**
1 x PCR solution – 200 μM dATP, 200 μM dCTP, 200 μM dGTP and 200 μM dTTP
- **Blue dye**
Migration equivalent to 3.5-4.5 kb DNA fragment
- **Yellow dye**
Migration rate in excess of primers in 1% agarose gel: <35-45 bp
- **Compound that increases sample density for direct loading**

Unit definition:

One unit is defined as the amount of enzyme required to catalyze the incorporation of 10 nmol of dNTP into an acid-insoluble form in 30 minutes at 74°C.

Shipping and Storage conditions:

Routine storage: -20°C

Shipping and temporary storage for up to 1 month at room temperature or storage for up to 6 months at 2-8°C has no detrimental effects on the quality of **AmiPol 5X Master Mix RTL**.

Safety warnings and precautions:

This product and its components should be handled only by persons trained in laboratory techniques. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

Recommended PCR reaction mix:

| Component | Volume | Final conc. |
|-----------------------------|-------------|-------------|
| AmiPol 5X Master Mix RTL | 4 μl | 1 x |
| Forward primer (10 pmol/μl) | 0.2-0.6 μl | 0.1-0.3 μM |
| Reverse primer (10 pmol/μl) | 0.2-0.6 μl | 0.1-0.3 μM |
| Template DNA | x μl | 5-50 ng/μl |
| Add H ₂ O | Up to 20 μl | |

Recommended PCR cycles:

| Operation | Temp. | Time | Cycles |
|-----------------------------|-------------|----------------|--------|
| Initial denaturation | 95°C | 3-5 min | 1 |
| Denaturation | 95°C | 20-40 s | 25-30 |
| Annealing | 54-66°C | 30-60 s | |
| Elongation | 72°C | 40 s - 4 min | |
| Final elongation | 72°C | 5-10 min | |

Recommendations:

We recommend using **AmiPol 5X Master Mix RTL** in any PCR application that will be visualised by agarose gel electrophoresis and ethidium bromide staining.

We do not recommend using the **AmiPol 5X Master Mix RTL** for PCR reactions where detergent free buffer system is required (detergent free 5 x Master Mix available upon request).

AmiPol 5X Master Mix RTL is not recommended for use in applications where necessary spectrophotometric measurements (absorbance or fluorescence) as yellow and blue dyes can interfere with these applications.

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.

Related products:

| Cat. No. | Product | Pack size |
|----------|---|---------------|
| MTE0001 | AmiPol DNA Polymerase | 500 U |
| MTE0002 | AmiPol DNA Polymerase | 1000 U |
| MTE0003 | AmiPol DNA Polymerase | 2000 U |
| MTE0006 | AmiPol Hot Start DNA Polymerase | 500 U |
| MTE0007 | AmiPol Hot Start DNA Polymerase | 1000 U |
| MTE0004 | AmiPol 5X Master Mix 12.5 mM MgCl ₂ | 250 reactions |
| MTE0370 | AmiPol 5X Master Mix 7.5 mM MgCl ₂ | 250 reactions |
| MTE0017 | MTE dNTP Mix (20 mM each) | 20 μmol |
| MTE0018 | MTE dNTP Mix (20 mM each) | 100 μmol |
| MTE0020 | MTE 100 mM dNTP Set | 4 x 25 μmol |
| MTE0021 | MTE 100 mM dNTP Set | 4 x 100 μmol |