# Tissue direct 2x PCR master mix

## Data Sheet

Version: 02/07.2024K

| Product | Article Number | Size |
|---|---|---|
| **Tissue direct 2x PCR master mix**<br>Optimized PCR master mix for DNA amplifications directly from tissue | BS91.422.0250<br>BS91.422.1250 | 250 reactions x 20 µl<br>1250 reactions x 20 µl |

## Product Details

| | |
|---|---|
| Shipping | RT or cooled |
| Storage | -20°C (long term)<br>2°C - 8°C (short term: stable for up to 4 weeks)<br><br>Avoid frequent freezing/thawing. |
| Expiry date | See product label |

## General Information

**Tissue direct 2x PCR master mix** is optimized for the amplification of target DNA directly from human or animal tissue and does not require prior DNA purification. The ready-to-use master mix is 2-fold concentrated and contains all the reagents required for a polymerase chain reaction (PCR).

The combination of an antibody-blocked hot-start polymerase and an optimized buffer system enables high robustness, sensitivity and reproducibility.

Tissue direct 2x PCR master mix enables quick and easy PCR preparation from human and animal tissue or cell lysates.

### Tissue direct 2x PCR master mix contains:

| Component | Concentration | BS91.422.0250 | BS91.422.1250 |
|---|---|---|---|
| **Tissue direct 2x PCR master mix** | 2x | 2 x 1.25 ml | 10 x 1.25 ml |
| **Extraction Buffer** | 10x | 2 x 1.5 ml | 10 x 1.5 ml |
| **PCR grade Water** | - | 15 ml | 5 x 15 ml |



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### Notes

- Interference of remaining sample matrix components
  Our master mix enables a fast and easy PCR. Due to the relatively rough sample preparation components from the sample matrix may be transferred into the PCR assay as well. Through specially optimized additives in our buffer those matrix components are mainly blocked.

  If inhibition of the PCR reaction occurs with higher volumes of transferred sample volume, please reduce the sample volumes or use a dilution of the sample in 1x Extraction Buffer or water.

## Instructions for use

### Sample preparation

1. Remove the reagents from the refrigerator and allow them to thaw completely. Briefly vortex all reagents and centrifuge down the liquids.
2. Dilute the extraction buffer (10x) with water PCR grade to a 1x concentration.
3. Prepare a small piece of tissue (diameter not larger than 8 mm)
4. Transfer the tissue sample to a 1.5 ml tube and add 1x concentrated extraction buffer to your sample:

| **Sample size** | 1-2 mm | 3-4 mm | 5-8 mm |
|---|---|---|---|
| **1x Extraction Buffer** | 50 µl | 100 µl | 200 µl |

5. Mix the sample briefly (by tapping or vortexing).

   **Important:** The sample should be soaked in 1x extraction buffer so that all components come into contact with extraction buffer.

6. Incubate the sample for 3 minutes at RT.
7. Centrifuge briefly and transfer 1-2 µl of the supernatant into a 20 µl PCR assay (or 2-5 µl into a 50 µl PCR assay). See section "PCR Assay preparation".

### PCR Assay preparation

Prepare a master mix (except template DNA) according to the table below.

**Note:** Use sterile filter tips and perform the setup in an area separate from DNA preparation or analysis. Include no-template controls in all amplifications.




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| Component | Stock Concentration | Final Concentration | 20 µl Assay | 50 µl Assay |
|---|---|---|---|---|
| Tissue direct 2x PCR master mix | 2x | 1x | 10 µl | 25 µl |
| Extracted Sample | - | - | 1-2 µl | 2-5 µl |
| Forward Primer (1) | 10 µM | 300 nM | 0.6 µl | 1.5 µl |
| Reverse Primer (1) | 10 µM | 300 nM | 0.6 µl | 1.5 µl |
| PCR grade water | - | - | fill up to 20 µl | fill up to 50 µl |

(1) The optimal concentration for primers may vary from 100 to 500 nM. Optimize for every new assay set-up.

Mix the tubes and spin down briefly to remove bubbles.

### PCR cycling

Set the PCR cycler with all cycling parameters as recommended below:

| | | | |
|---|---|---|---|
| **Initial denaturation** | 95°C | 2 min | 1x |
| **Denaturation**<br>**Annealing & Elongation** | 95°C<br>60 - 65°C (2) | 15 sec<br>30 - 60 sec (3) | 35 - 45x |

(2) The annealing temperature depends on the specific primer melting temperature.
(3) The elongation time depends on the amplicon length. 30 sec are sufficient for fragments < 500 bp.

To obtain optimal specificity and amplification results adapts the parameters individually for each sample/primer pair.

## Precautions and Disclaimer

This product is for research use only. This product should only be used by persons experienced in laboratory applications. Standard laboratory protective clothing such as gowns, gloves and goggles should be worn.

### 10x Extraction Buffer

**Hazard pictograms:** Corrosion

**Signal word:** Danger



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**Hazard statements:**

**H314**_Causes severe skin burns and eye damage.

**Precautionary statements:**

**P260**_Do not breathe dust/fume/gas/mist/vapours/spray.

**P280**_Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

**P303 + P361 + P353**_IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).

**P305 + P351 + P338**_IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**P310**_Immediately call a POISON CENTER/doctor/...

**P321**_Specific treatment (see...on this label)

## Do you have questions?

If you have any further questions about this product, please do not hesitate to contact us!
By e-mail: info@bio-sell.de or by phone: +49 (0) 9128 724 32 32.




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