

## DESCRIPTION

2X Magic SYBR Mix is an allround-qPCR Mix for SYBR® Green-based detection optimized for a broad range of applications.

It includes:

- a **HotStart** feature for maximum control over the reaction start (e.g. in automated applications),
- a **dUTP/dTTP blend** to enable UNG digestion (minimizing the risk of contamination from PCR products),
- a **universal ROX concentration** suitable for all PCR machines,
- an **additional normalization option** for Bio-Rad cyclers and
- improved performance in the presence of **PCR inhibitors**.

PRODUCT	SIZE	SKU
2X Magic SYBR Mix	2 ml	PCCSKU1107
	5 ml	PCCSKU1108

## ADDITIONAL MATERIALS REQUIRED

- Nuclease-free PCR tubes or plates and suitable sealing options
- Real-time PCR cycler
- PCR Primer
- Template DNA and control DNA standards
- Filter pipette tips
- Sterile, nuclease-free, DNA-free tubes for preparing the reaction mix
- Alternative normalization dye, if required (e.g., fluorescein for BioRad instruments)
- (Optional) *Uracil-N Glycosylase (UNG)*

## STORAGE

Store all components at -20°C and avoid repeated freeze and thaw cycles.

## REACTION SETUP

Before starting the reaction setup, thaw 2X Magic SYBR Mix and mix thoroughly but gently to ensure even distribution of components.

Dilute your standard DNA and experimental samples with nuclease-free water to the desired concentrations and add them to their designated wells in the multi-well plate. For negative control, add nuclease-free water. Keep the plate on ice until further use.

(Optional) Perform an UNG digestion according to the manufacturer's instructions.

COMPONENT	VOLUME	FINAL CONCENTRATION
2X Magic SYBR Mix	10 µl	1X
Template DNA	X µl	max. 2 µl
Forward primer (10 µM)	0.4 µl	0.05 – 0,9 µM each
Reverse primer (10 µM)	0.4 µl	0.05 – 0,9 µM each
Nuclease-free dH <sub>2</sub> O	X µl	to 20 µl

## RECOMMENDED qPCR PROTOCOL

STEP	CYCLES	TEMPERATURE	TIME
Initial Denaturation	1	95°C	5 minutes
		95°C	10 seconds
Amplification	40	55-60°C	15 seconds
		72°C	20 seconds
Final Elongation	1	72°C	2 minutes

Add an additional melting curve step if required. A melting curve is recommended to ensure specific amplification and to detect possible primer oligomers.