

## **ProbeMaster® Lyo Eva488 ROX, 5×**

<http://www.lumiprobe.com/p/probemaster-mix-eva488-rox-lyo>

ProbeMaster® Lyo Eva488 ROX is a lyophilized master mix containing all necessary components for polymerase chain reaction (PCR), intercalating dye Eva488, and the reference dye ROX. The composition of the mixture is optimized to obtain ideal results in terms of processivity and specificity of amplification.

The lyophilized form allows the product to be transported at room temperature for up to three weeks. Just add the amount of water specified in the instructions to restore the mixture to liquid form.

The ProbeMaster® Lyo Eva488 ROX master mix is suitable for real-time PCR due to the intercalating dye Eva488. It allows accurate determination of the DNA matrix content in the sample due to the normalizing dye ROX in its composition. The mixture can also be used for DNA amplification with subsequent electrophoresis detection.

## **Master mix composition**

- HS Taq DNA polymerase;
- Deoxynucleoside triphosphates;
- PCR buffer (contains  $Mg^{2+}$ );
- Eva488 intercalating dye;
- ROX reference dye;
- Protectants for lyophilization.

## **Key characteristics**

- One tube of the lyophilized mixture after dilution in 450  $\mu$ L of water is enough for 100 reactions with a volume of 25  $\mu$ L.
- The mixture is completely ready for use. The only DNA sample, primers, and water must be added to the mixture to perform the reaction. It saves considerable time for reaction. The ready-to-use format of the master mix reduces the risk of sample contamination.
- Genomic, viral, plasmid DNA, cDNA after reverse transcription, etc., can be used as a matrix.
- Contains high-processive Hot-Start Taq polymerase with activation for 5 min at 95 °C. The HS Taq DNA polymerase is an enzyme complex with a monoclonal antibody. Heating the sample in the first PCR cycle inactivates the antibodies in the complex and activates the enzyme. The «hot start» technology prevents nonspecific amplification and primer dimer formation.
- HS Taq DNA polymerase has 5'-3' polymerase and 5'-3' exonuclease activity; it also has transferase activity: it attaches an additional adenine residue to the 3' ends of double-stranded DNA, allowing PCR products to be used for TA cloning.
- The master mix contains the intercalating dye Eva488. Eva488 is a dimeric acridine that brightly fluoresces upon binding to double-stranded DNA and does not inhibit the reaction. The fluorescence of Eva488 dye is detected by the FAM channel.
- For signal normalization, the reference dye ROX is included in the master mix. The concentration of ROX has been specifically optimized to work on most real-time amplifiers available on the market.
- Does not contain UDG and dUTP.

## **Possible applications**

Real-time PCR, PCR with electrophoresis detection, PCR with cDNA samples after reverse transcription, genotyping, PCR for colony verification.

# Equipment compatibility

Compatible with all types of amplifiers.

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## General properties

Appearance: pink colored tablet

Solubility: water

Quality control: Functional test

Storage conditions:

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