

ProbeMaster® Lyo Eva488, 5x

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

ProbeMaster® Lyo Eva488 is a lyophilized reaction mixture containing all the necessary components for polymerase chain reaction (PCR) and the intercalating dye Eva488. The mixture composition is optimized to achieve optimal results in terms of processivity and amplification specificity. To reconstitute the mixture into a liquid form, add the specified amount of water.

The ProbeMaster® Lyo Eva488 reaction mixture is suitable for both real-time PCR using the intercalating dye Eva488 and DNA amplification, followed by detection of results by electrophoresis. Due to the absence of UDG/dUTP in the composition, the reaction mixture can be used for routine cloning and other tasks that require further use of the PCR product after amplification.

Reaction mixture composition

- HS Taq DNA polymerase;
- Mixture of deoxynucleoside triphosphates;
- PCR buffer (contains Mg²⁺);
- Intercalating dye Eva488;
- Cryoprotectants

Key characteristics

- One tube of lyophilized mixture, diluted to 450 µL with water, is sufficient for 100 reactions of 25 µL each.
- The mixture is completely ready for use. To set up the reaction, only the DNA sample, primers, and water need to be added to the mixture, which significantly saves time. The ready-to-use reaction mixture format reduces the risk of sample contamination.
- Genomic, viral, plasmid DNA, etc., can be used as a template.
- Contains a highly processive Hot-Start Taq polymerase with 5 min activation at 95 °C. The HS Taq DNA polymerase used is a complex of monoclonal antibodies with the enzyme. Heating the sample during the first PCR cycle inactivates 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 possesses transferase activity, which adds an adenine residue to the 3' ends of double-stranded DNA, allowing the use of PCR products for TA cloning.
- The mixture contains the intercalating dye Eva488. Eva488 is a dimeric acridine that fluoresces when bound to double-stranded DNA, exhibits bright fluorescence, and does not inhibit the reaction. Eva488 is a complete structural analog of the EvaGreen® dye. The fluorescence of the Eva488 dye is detected in the FAM channel.
- Does not contain UDG and dUTP.

Applications

Real-time PCR, PCR with electrophoresis detection, PCR with cDNA samples after reverse transcription, genotyping, colony PCR, product generation for TA cloning, etc.

Equipment compatibility

Compatible with any thermal cycler.

PCR reaction mixture selection table

Name	Reaction mixtures for quantitative PCR (RT-PCR)				Application
	dsGreen	Eva488	ROX	UDG, dUTP	
ProbeMaster® Lyo UDG Cat.# •0514	—	—	—	✓	
ProbeMaster® Lyo ROX Cat.# •0114	—	—	✓	—	
ProbeMaster® Lyo Eva488 Cat.# •0614	—	✓	—	—	qPCR with DNA probes or intercalating dye
ProbeMaster® Lyo Eva488 ROXCat.# •0714	—	✓	✓	—	
ProbeMaster® Lyo dsGreen Cat.# •0814	✓	—	—	—	
		Reaction mixture for standard PCR			
ProbeMaster® Lyo GEL Cat.# •0024	—	—	—	—	PCR followed by gel electrophoresis analysis, contains dye for application to gel
ProbeMaster® Lyo GEL UDGCat.# •0524	—	—	—	✓	
		Universal reaction mixture			
ProbeMaster® Lyo UNI Cat.# •0534	—	—	—	—	qPCR with DNA probes/intercalating dye or standard PCR followed by gel electrophoresis analysis

General properties

Appearance: light yellow tablet

Solubility: water

Quality control: functional test

Storage conditions: Storage: 12 months (from the date of delivery) at 4 °C.

Transportation: Up to 21 days at temperatures up to 25 °C.

After reconstitution into liquid form, store at 4 °C for up to 30 days or freeze and store at –20 °C within the shelf life. The reconstituted mixture may undergo up to five freeze-thaw cycles.

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