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ProbeMaster® Lyo GEL UDG, 5×

http://cn.lumiprobe.com/p/probemaster-lyo-gel-udg

ProbeMaster® Lyo GEL UDG is a lyophilized, ready-to-use reaction mixture containing all the necessary components for PCR with subsequent detection by electrophoresis. To reconstitute the mixture into a liquid form, add the specified amount of water. The mixture composition is optimized to obtain ideal results in terms of processivity and amplification specificity. Thanks to the high mixture density and the presence of dyes (Bromophenol Blue and Xylene Cyanol), the sample does not need to be mixed with loading buffer before application to the gel. The presence of two dyes allows for precise control of electrophoresis time.

The ProbeMaster® Lyo GEL UDG reaction mixture is suitable for DNA amplification, with results subsequently detected by electrophoresis. Uracil-DNA glycosylase eliminates contamination from amplicons generated in previous reactions and prevents false-positive results, especially during electrophoresis. Due to the presence of dUTP, the mixture is not suitable for applications where the amplification products need to be used further. For such applications, we recommend using our ProbeMaster®Lyo GEL reaction mixture.

Reaction mixture composition

- HS Taq DNA polymerase;
- Uracil-DNA glycosylase (UDG);
- Deoxynucleoside triphosphate mixture (including dUTP);
- PCR buffer (contains Mg^{2+});
- Dyes for gel loading;
- Cryoprotectants

Key characteristics

- One tube of lyophilized mixture, after dilution in 450 µL of 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.
- Uracil-DNA glycosylase removes amplicon contamination from previous reactions and prevents false-positive results, which is especially important when performing amplicon electrophoresis.
- Suitable for PCR of fragments up to 3000 bp in length, with no more than 70% GC content, and not requiring high-precision amplification.
- Genomic, viral, plasmid DNA, and other templates, as well as cDNA obtained by reverse transcription, can be used.
- Contains a highly processive Hot-Start Taq polymerase, activated at 95 °C for 1 minute. The HS Taq DNA polymerase is a complex of monoclonal antibodies with the enzyme. Heating the sample in the first PCR cycle inactivates the antibodies in the complex and activates the enzyme. The "Hot-Start" technology prevents non-specific amplification and primer dimer formation.
- The composition and density of the mixture are optimized for direct application of the sample to an agarose gel after amplification.
- Due to the dyes included in the mixture, samples are easy to load onto an agarose gel. The presence of two dyes (Bromophenol Blue and Xylene Cyanol) allows for precise control of electrophoresis time.

Applications

PCR with detection of amplification products using gel electrophoresis, and PCR after reverse transcription.

Equipment compatibility

Compatible with any thermal cycler.

PCR reaction mixture selection table

Name	dsGreen	Eva488	ROX	UDG, dUTP	Application
Reaction mixtures for quantitative PCR (RT-PCR)					
ProbeMaster® Lyo UDG Cat.# •0514	—	—	—	✔	qPCR with DNA probes or intercalating dye
ProbeMaster® Lyo ROX Cat.# •0114	—	—	✔	—	
ProbeMaster® Lyo Eva488 Cat.# •0614	—	✔	—	—	
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

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外观

溶解度 水

质量控制 功能测试

储存条件 储存：4°C 下 12 个月（自交付之日起）。
运输：在 25°C 温度下最多 21 天。
重新配制为液体形式后，可在 4°C 下储存最多 30 天，或在有效期内冷冻并储存在 -20°C 下。重构的混合物最多可经历五次冻融循环。

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