Lumiprobe Corporation
115 Airport Dr Suite 160
Westminster, Maryland 21157
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

ProbeMaster® Lyo GEL, 5×

http://www.lumiprobe.com/p/probemaster-lyo-gel

ProbeMaster® GEL is a ready-to-use lyophilized reaction mixture containing all the necessary components for PCR with subsequent detection of results by electrophoresis. To reconstitute the mixture into a liquid form, simply add the specified amount of water. The composition of the mixture is optimized to achieve ideal results in terms of processivity and specificity of amplification. Due to the high density of the mixture and the presence of dyes (bromophenol blue and xylene cyanol), the sample does not require mixing with loading buffer before being loaded onto the gel. The presence of two dyes allows precise control of electrophoresis time.

The ProbeMaster® Lyo GEL reaction mixture is suitable for DNA amplification followed by electrophoretic detection of the results and can be used for routine cloning and other applications requiring further use of the PCR product after amplification (the mixture does not contain UDG/dUTP).

Due to the presence of visible dyes, ProbeMaster® GEL is not suitable for real-time PCR. If needed, you can order the ProbeMaster® Lyo UNI real-time PCR reaction mixture.

Reaction mixture composition

- HS Taq DNA polymerase;
- PCR buffer (contains 3 mM Mg^{2+} in 1× reaction mixture);
- Deoxynucleoside triphosphate mixture;
- Gel loading dyes;
- 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 a reaction, only the DNA sample, primers, and water need to be added to the mixture, significantly saving reaction time. The ready-to-use reaction mixture reduces the risk of sample contamination.
- Suitable for PCR fragments up to 3,000 bp in length, with no more than 70% GC, and not requiring high-precision amplification.
- Genomic, viral, plasmid DNA, and other materials can be used as templates.
- Contains highly processive Hot-Start Taq polymerase with activation at 95 °C for 10 min. The HS Taq DNA polymerase used 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. "Hot-Start" technology prevents non-specific amplification and the formation of primer dimers.
- HS Taq DNA polymerase has 5′-3′ polymerase and 5′-3′ exonuclease activity; it also has transferase activity: it adds an additional adenine residue to the 3′ ends of double-stranded DNA, allowing the PCR products to be used for TA cloning.
- The composition and density of the mixture are optimized for direct sample loading onto an agarose gel after amplification is complete.
- Samples are easily loaded onto an agarose gel due to the dyes included in the mixture. The presence of two dyes (Bromophenol Blue and Xylene Cyanol) allows precise control of electrophoresis time.

Applications

Standard PCR, RT-PCR, genotyping, PCR for colony testing, obtaining a product for TA cloning, etc.

Equipment compatibility:

Compatible with any thermocycler.

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

---

General properties

Appearance:	deep-blue 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 a temperature of 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 expiration date. The reconstituted mixture may undergo up to five freeze–thaw cycles.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.