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ProbeMaster® Lyo dsGreen, 5×

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

ProbeMaster® Lyo dsGreen is a lyophilized master mix containing all the necessary components for performing the Polymerase Chain Reaction (PCR), as well as the intercalating dye dsGreen. The composition of the mix has been optimized to achieve ideal amplification processivity and specificity. To reconstitute the mix into liquid form, simply add the specified volume of water.

The ProbeMaster® Lyo dsGreen mix is suitable for both real-time PCR using the intercalating dye dsGreen and for DNA amplification followed by result detection via electrophoresis. Because the mix lacks UDG/dUTP, it can be used for routine cloning tasks and other applications that require subsequent use of the PCR product.

Master Mix Composition

- HS Taq DNA Polymerase;
- Deoxynucleoside triphosphate (dNTP) mix;
- PCR buffer (containing Mg^{2+});
- dsGreen intercalating dye;
- Cryoprotectants

Key Features

- One tube of the lyophilized mix, once reconstituted with 450 µL of water, is sufficient for performing 100 reactions with a volume of 25 µL each.
- The mix is completely ready for use, which reduces the risk of sample contamination and significantly saves time during reaction setup. To set up a reaction, one needs only to add the DNA template, primers, and water to the mix.
- Suitable for PCR amplification of fragments up to 3,000 base pairs (bp) in length, with a GC content not exceeding 70%, and for applications that do not require high-fidelity amplification.
- Genomic, viral, plasmid DNA, and other types of DNA can be used as templates.
- The reaction mix contains Taq polymerase featuring «hot start» technology. The HS Taq DNA polymerase utilized in this product consists of a complex formed between monoclonal antibodies and the enzyme. Heating the sample during the initial PCR cycle inactivates the antibodies within the complex, thereby activating the enzyme. This "Hot-Start" technology effectively prevents nonspecific amplification and primer dimer formation.
- The included HS Taq DNA polymerase exhibits 5′→3′ polymerase, 5′→3′ exonuclease, and adenyltransferase activities, making the resulting PCR products suitable for TA cloning.
- The mixture contains dsGreen, an intercalating dye highly sensitive to the presence of double-stranded DNA, which enables «real-time» PCR (quantitative PCR) without the need for added fluorescent probes.
- Contains no UDG or dUTP.

Applications

Real-time PCR, PCR with electrophoretic detection, PCR using cDNA templates generated via reverse transcription, genotyping, colony PCR, generation of products for TA cloning, and others.

Equipment Compatibility

Compatible with all types of thermal cyclers.

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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General properties

Solubility:	water
Quality control:	functional test
Storage conditions:	Storage: 12 months (from the date of delivery) at 4 °C. Transportation: 21 days at a temperature of up to 25 °C. After reconstitution, 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.