Product information

Product Name: 2X ReadyGo HSF PCR Master Mix

Catalog No: VN610MC, VN611MC, VN612MC, VN610MR, VN611MR, VN612MR, VN610MCGC, VN611MCGC, VN612MCGC, VN610MRGC, VN611MRGC, VN612MRGC

Packing Size: 500 x 25 µl rxns, 250 x 25 µl rxns and 100 x 25 µl rxns

Shipping Condition: Ice pack

Storage Condition: -20^{0}C

Shelf life: At least 2 year if stored at -20^{0}C and 20 freezes / thaws or at least 1 week if stored at 4^{0}C.

Product Description:

2X ReadyGo HSF PCR Master Mix is a 2X concentrated solution of hot-start and high fidelity *Taq* DNA polymerases, dNTPs, and all of the components required for PCR, except DNA template and primers. This pre-mixed formulation saves time and reduces contamination due to a reduced number of pipetting steps required for PCR set up. It increases specificity and sensitivity because reducing formation of no specific products and primer dimer. You can set up reactions at room temperature. The mix is optimized for efficient and reproducible PCR.

The Master Mix has four versions, with standard buffer and GC buffer, colorless and Green. The Master Mix with GC buffer is used for amplification of GC-rich target (GC content is >65%). The green one is supplemented with two tracking dyes for the convenience of direct gel loading of PCR products. On a 1% agarose gel in 1X TBE, one dye migrates at approximately 4 kb and another migrates at approximately 50 bp.

Protocol:

PCR setting for a 25 µl reaction

Reagent	Volume	Final Concentration
2X ReadyGo HSF PCR Master Mix	12.5 µl	1x
Left Primer	Variable	0.2-0.4 µM
Right Primer	Variable	0.2-0.4 µM
DNA Template†	Variable	0.1-100 ng
De-ionized Distilled H_2O	Adjust final volume to 25 µl	-

†DNA amount depends mostly on genome size and target gene copy number.

Typical Cycling Parameters

Initial Denaturation	95^{0}C	5-10 min
25-40 cycles		
Denaturation	94^{0}C	20 to 60 sec
Annealing	50^{0}C to 68^{0}C	20 to 60 sec
Extension	70^{0}C	1-2 min / 1kb target
Final Extension	70^{0}C	5 min
Hold	4^{0}C	

Troubleshooting guide

No product or Low yield of product	Check your PCR setting to see if you miss some components. Increase PCR cycles. Try gradient annealing temperature to find optimal one. Check the DNA or primers to see if they degraded.
Non-specific products are observed	Try gradient annealing temperature to find optimal annealing temperature for your target. Check your primers or redesign them if necessary. Check GC content of the target. If it is more than 65%, you may need to use GC-rich version.

Note: This product is for R&D use only

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