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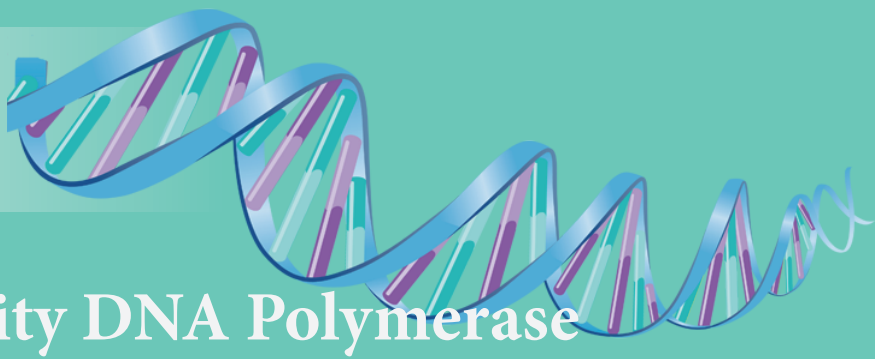

MorreTaq High-Fidelity DNA Polymerase

The High-Fidelity Polymerase For Longer DNA

MorreTaq High-Fidelity DNA polymerase are thermostable enzymes formulation specifically developed for synthesizes length up to 30kb and low error rate PCR product.
High-Fidelity polymerase synthesizes higher yields of product from genomic DNA, cDNA, bacterial cultures. It is contain a 2.5 hours half life at 96oC and easy to amplify PCR product at G-C rich and secondary structure.

10X reaction buffer
Containing 25mM $MgCl_2$.

Unit description
One unit of MorreTaq High-Fidelity DNA polymerase incorporates 10 nmol of dNTP into acid-insoluble material in 30 min at 74°C.

Storage conditions
Storage at -20℃

Template
MorreTaq High-Fidelity DNA polymerase is suitable for amplifying targets up to 15 kb from the following templates:
Genomic DNA: 10–200 ng
Plasmid DNA : 1–5 ng
cDNA : ~100 ng starting total RNA
Amplification of longer targets (up to 15 kb) may be possible, but may require more template and longer elongation times.

Primers
Use 0.3 µM per primer as a general starting point. For larger amounts of template (e.g., 200 ng genomic DNA), increasing the concentration up to 0.5 µM per primer may improve yield.

Annealing Temperature
The annealing temperature is slightly higher than with typical PCR. The optimal annealing temperature should be ~2°C lower than the Tm of the primers used. A range of 58–68°C is recommended.

Extension Time
As little as 30 seconds per kb is suitable for most targets. Use up to 60 seconds per kb for maximum yield.

PCR reaction mix

Component	Volume
MorreTaq High-Fidelity DNA polymerase	0.5-1ul
10X buffer	10 ul
10mM dNTP	2 ul
Primer1 (20 pmol)	2-4 ul
Primer2 (20 pmol)	2-4 ul
template	1-10 ul
ddH_2O	Up to 100 ul
Total	100 ul

PCR cycles

Step	Temperature	Time	Cycle
Initial denaturation	94-96℃	0.5-2 mins	1
Denaturation	94-96℃	0.2-2 mins	
Annealing	50-68℃	0.2-2 mins	15-30
Extension	68-75℃	1min/1kb	
Final extension	68-75℃	1-10 mins	1

Step
After cycling, maintain the reaction at 4°C. Samples can be stored at –20°C until use.

Ordering information

Cat.	Pack	Con.
MHF500	500U	5U/ul
MHF2500	2500U	5U/ul

For Research Use Only.
Not for use in diagnostic procedures.

About MORREBIO
Find more on https://www.light-biotech.com/