

Dr. Q 分子生物試劑



Dr.Q HiFi DNA Polymerase
Product name: Dr.Q HiFi DNA
Polymerase,500u
Catalogue no.:Dr.QPCR007

Cat No	Pack size	conc
DR.QPCR007	500 U	5U/ul

Description

Hi Fidelity polymerase is a mixture of thermostable enzymes. It is specifically developed to synthesize length of PCR product up to 25 kb and with low error rate. Hi Fi polymerase synthesizes higher yields of product from genomic DNA, cDNA, and bacterial cultures. It has 2.5 hours half life at 96°C and easily amplify PCR product of G-C rich or secondary structure DNA by adding G-C rich buffer.

storage conditions

-20°C

10X reaction buffer

Buffer containing 25mM MgCl₂

Unit description

One unit is defined as the amount of enzyme that will incorporate 10nmole of dNTP into acid-insoluble material in 30 minutes at 74°C. The reaction conditions are: 50mM Tris-HCl pH8.8, 50mM NaCl, 5mM MgCl₂, 200uM each of dATP, dCTP, dGTP, dTTP, 10ug activated calf thymus DNA and 0.1mg/ml BSA in a final volume of 50ul.

尉徠生物科技有限公司

FUTURE SCIENTIFIC CO.,LTD

地址：桃園縣龜山鄉文化一路259號工學大樓1F創新育成中心5884室

TEL：(03)211-8800#5884；(03)211-8299 MOBILE：0955-103293

Dr. Q 分子生物試劑

Template

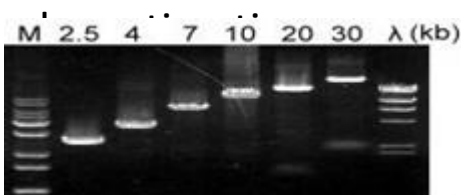
Hi Fidelity Polymerase is suitable for amplifying targets up to 25 kb from the following templates:

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



Hi Fidelity polymerase amplified λ DNA from 2.5k to 30k DNA fragment

Primers

Use 0.3 μ M 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 μ M per primer may improve yield.

Annealing Temperature

The annealing temperature is slightly higher than with Typical PCR. The optimal annealing temperature should be $\sim 2^{\circ}\text{C}$ lower than the T_m of the primers used. A range of 58–68 $^{\circ}\text{C}$ 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

尉徠生物科技有限公司

FUTURE SCIENTIFIC CO.,LTD

地址：桃園縣龜山鄉文化一路259號工學大樓1F創新育成中心5884室

TEL：(03)211-8800#5884；(03)211-8299 MOBILE：0955-103293

Program the thermal cycler

Step	Temperature	Time	Cycle
Initial denaturation	94-95 °C	1-3 mins	1
Denaturation	94-95 °C	10-60sec	
Annealing	50-68 °C	10-30sec	25-35
Extension	72 °C	1min/1kb	
Final extension	72 °C	1-10 mins	1

IMPORTANT: Annealing temperature should be 2-6°C lower than the primer melting temperature.

Shipping and Storage conditions

Shipping and temporary storage at -20°C and for up to 1 month at room temperature has no detrimental effects on the quality of Hi Fidelity DNA polymerase.