



AviQaq™

Cat. No.: A10010

250 Units

Cat. No.: A10011

500 Units

Cat. No.: A10012

1000 Units

Store at -20 °C

Component	A10510	A10511	A10512
Enzyme (5U/ µl)	50 µl	100 µl	200 µl
MgCl ₂ 25 mM	0.5 ml	1 ml	2 x 1ml
10X Buffer	0.5 ml	1 ml	2 x 1ml

Description:

AviQaq™ is a high quality purified recombinant enzyme and catalyze 5'→3' synthesis of DNA.

AviQaq™ has no detectable 3'→5' proofreading exonuclease activity.

AviQaq™ is provided with 10X reaction buffer that will enable or improve sub-optimal PCR caused by templates that have a high degree of secondary structure or that are GC-rich.

Kit storage:

AviQaq™ should be stored at -20 °C.

Under this condition reagents are stable for two years from the date of production.

General Reaction Protocol:

1. Thaw 10X reaction buffer, dNTP mixture.
2. Mix the master mix thoroughly and dispense appropriate volumes into PCR tubes or plates.

Component	Volume	Final Conc.
10X Reaction Buffer	2 µl	1X
MgCl ₂ Solution 25 mM	1.2 µl	1.5 mM
dNTPs Mix (10 mM each)	0.4 µl	0.2 mM
Upstream Primer (10 pmol/ µL)	1 µl	0.5 pmol/µl
Downstream Primer (10 pmol/µL)	1 µl	0.5 pmol/µl
Template DNA	Variable	10 fg~1 µg
PCR grade water	Variable	-
AviQaq™	0.25 µl	
Total Volume	20 µL	-

3. Add templates DNA to the individual PCR tubes or wells containing the master mix.
4. Program the PCR machine according to the program outlined.

Cycle	Time	Temp °C
1	4 min	95
	30 sec	94
30-35	30 sec	57
	30-60	72
1	5 min	72

Notes:

* Extension temperature is between 68°C and 72 °C.

We highly recommend 68 °C for more efficiency of **AviTaq™**.

* For PCR products longer than 3~4 Kb, use an extension time of approximately 1 min. per Kb DNA.

* A DNA fragment which is amplified by **AviTaq™** has A-overhang, and it enables you to do cloning by using T-vector

Agarose gel Electrophoresis:

Run the total 5-7 µl of PCR products alongside 3µl DNA marker on a 2% agarose gel containing **AviStain™**.

Disclaimers and Addresses:

AviTaq™ is for **Research Use Only** and should only be used by trained professionals.