Protocol Using QuantiTaq™ DNA Polymerase

This protocol serves as a guideline for primer extensions. Optimal reaction conditions may vary and must be individually determined.

1. Dilute QuantiTaq™ DNA polymerase (5u/µl) by using provided polymerase dilution buffer with 1:5 dilution rate; thus the final concentration of QuantiTaq™ polymerase will be 1u/µl.

2. Thaw 10× Reaction buffer, dNTP mix (not included), and primer solutions (not included). It is important to mix the solutions completely before use to avoid localized concentrations of salts.

3. Prepare a master mix according to Table 1*. The master mix typically contains all the components need for extension except the template DNA.

Component	**Vol./reaction**	**Final Conc.**
10× Reaction Buffer	2.5 µl	1 ×
dNTP mix (10mM of each)	0.5 µl	0.2 mM of each dNTP
Primer A	Variable	0.1-1.0 µM
Primer B	Variable	0.1-1.0 µM
QuantiTaq™ polymerase	Variable	1 unit
Distilled Water	Variable	
Template DNA	Variable	Variable
Total volume	**25 µl**	

*The reaction volume can be scaled up based on above component ratios.