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VitaTaq® HS Multiplex Kit

VitaTaq® HS Multiplex Kit is a convenient multiplex formulation of the robust and efficient VitaTaq® DNA Polymerase optimized for applications with several primer pairs in one reaction. The reaction buffer propagates efficient & selective annealing of all primers to the template DNA and protects the enzyme during long PCR experiments and under harsh cycling conditions. The HotStart feature ensures full control over the amplification start and prevents non-specific amplification.

Product	Size	SKU
VitaTaq® HS Multiplex Kit	100 rxn / 50 µl	PCCSKU1010
	200 rxn/ 50 µl	PCCSKU1011
	500 rxn / 50 µl	PCCSKU1012

Storage Conditions

Store VitaTaq® HS Multiplex Kit at -20°C, avoid repeated freeze & thaw cycles.

Additional Materials Required

- Nuclease-free PCR tubes or plates
- PCR cycler
- Template DNA
- Primers designed for multiplex applications
- Sterile, nuclease-free, DNA-free tubes for preparing the reaction mix
- Nuclease-free dH_2O

Reaction Setup

1) Thaw VitaTaq® HS Multiplex Kit on ice and mix gently but thoroughly.
2) Pre-mix your primers at 5 µM each. VitaTaq® HS Multiplex Kit tolerates up to 10 µM of total primer content in a 50 µl reaction. High primer content, however, can decrease multiplexing efficiency.
3) Mix the following components in a sterile, nuclease-free tube:

Component	Volume	final concentration
5X Reaction Buffer	10 µl	1X
Primer Mix (5 µM each)	2 µl	0.2 µM each
50X Enzyme Solution	1 µl	1X
template DNA	1 µl	< 1 µg / 50 µl
nuclease-free dH_2O		to 50 µl

4) Place the reaction in your thermal cycler and immediately start the reaction.

Step	cycles	Temperature	Duration
Hot Start / Initial denaturation	1	95°C	5 min
Amplification	45-50	95°C	10 sec
		57°C	90 sec
Final Extension	1	57°C	5 min
Hold	1	4°C	

5) Analyze the results on an agarose or polyacrylamide gel depending on your product size and required resolution.