



## VITA LONGRANGE PCR KIT

Vita LongRange PCR Kit offers an option for the amplification of targets up to 15 kb. The enzyme mix combines the best features of VitaTaq® and VitaProof®: short extension times of 30 seconds / kb combined with the increased fidelity by VitaProof's® exonuclease activity.

PRODUCT	SIZE	SKU
	100 rxn / 50 µl	PCCSKU1013
<b>Vita LongRange PCR Kit</b>	200 rxn / 50 µl	PCCSKU1014
	500 rxn / 50 µl	PCCSKU1015

## ADDITIONAL MATERIALS REQUIRED

- Nuclease free PCR tubes or plates
- PCR cycler
- PCR Primer
- dNTPs
- Template DNA
- Filter pipette tips
- Sterile, nuclease-free, DNA-free tubes for preparing the reaction mix

## STORAGE

Store all components at -20°C and avoid repeated freeze and thaw cycles.

## REACTION SETUP

- 1) Thaw all components on ice and mix gently to ensure even distribution of all components. Prepare the reaction on ice in a sterile, nuclease free tube and mix gently after addition of the polymerase. Collect all liquid at the bottom of the tube by a quick spin. Keep the reaction on ice until you transfer it to the thermocycler.

COMPONENT	VOLUME	FINAL CONCENTRATION
10X LongRange Buffer	5 µl	1X
dNTP Mix (10 mM each)	1 µl	0.2 mM each
Primer 1 (10 µM)	1 µl	0.1 µM – 0.5 µM
Primer 2 (10 µM)	1 µl	0.1 µM – 0.5 µM
LongRange Enzyme Mix	0.5 µl	
template DNA	1 µl	< 1 µg
dH <sub>2</sub> O		to 50 µl

- 2) Transfer the reactions to the thermocycler, then cycle according to these guidelines:

STEP	CYCLES	TEMPERATURE	DURATION
Initial	1	94°C	5 minutes
Amplification	25-35	94°C	30 seconds
		T <sub>m</sub> – 5°C	30 seconds
		68°C	30 seconds / kb <sup>1</sup>
Final Extension	1	68°C	5 minutes

<sup>1</sup> for amplification from genomic DNA, 1 minute / kb is recommended.

- 3) Analyse the amplification reaction by gel electrophoresis using an acrylamide or agarose gel of appropriate percentage.