

## REDiant II DNA Polymerase and PCR Master Mix

*Formulated with Density Reagents and Inert Tracking Dyes to Enable Easy Visual Control*

**REDiant II** PCR Master Mix is a premixed, ready-to-use solution which contains *Taq* DNA polymerase, dNTPs, MgCl<sub>2</sub> and reaction buffer for amplification of DNA templates by PCR. This pre-mixed formulation saves time and reduces contamination by reducing the number of pipetting steps required for usual PCR set up. The mix is optimised for efficient and reproducible PCR. It also includes a red, inert tracking dye which migrates at the same rate as 1kb DNA fragment in a 1% agarose gel.

Robust Amplification

Higher Sensitivity

Amplification of Targets up to 6kb

Minimum Pipetting Steps Required

Faster Processivity

High Efficiency & PCR Yields

### Polymerase for Everyday Applications

- ✔ DNA sequencing
- ✔ DNA labelling
- ✔ PCR for cloning
- ✔ Routine PCR
- ✔ Colony PCR
- ✔ PCR amplification of DNA fragments up to 6kb

### Specifications

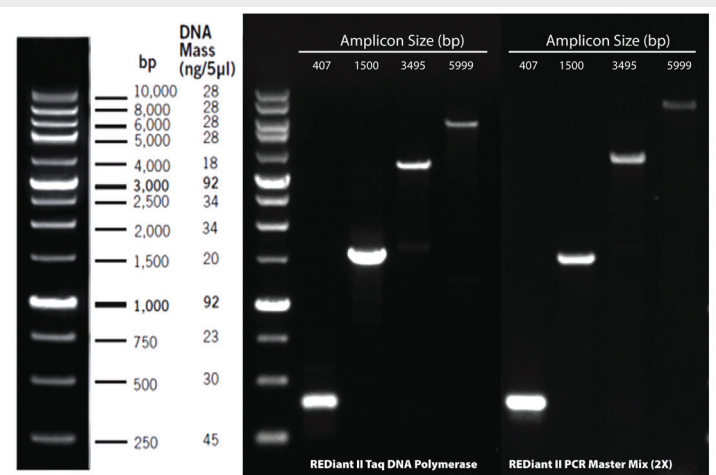
<b>Fidelity</b>	1X
<b>Amplification length</b>	Up to 6 kb
<b>Overhang</b>	Sticky ends/ 3'-A
<b>Polymerase</b>	Taq II DNA Polymerase
<b>Amplification Speed</b>	30s-60s/kb

### Robust & Efficient Amplification

Reliable amplification from various sample types and amplification length. Improved yield with optimal buffer system and amplification of long DNA up to 6kb.

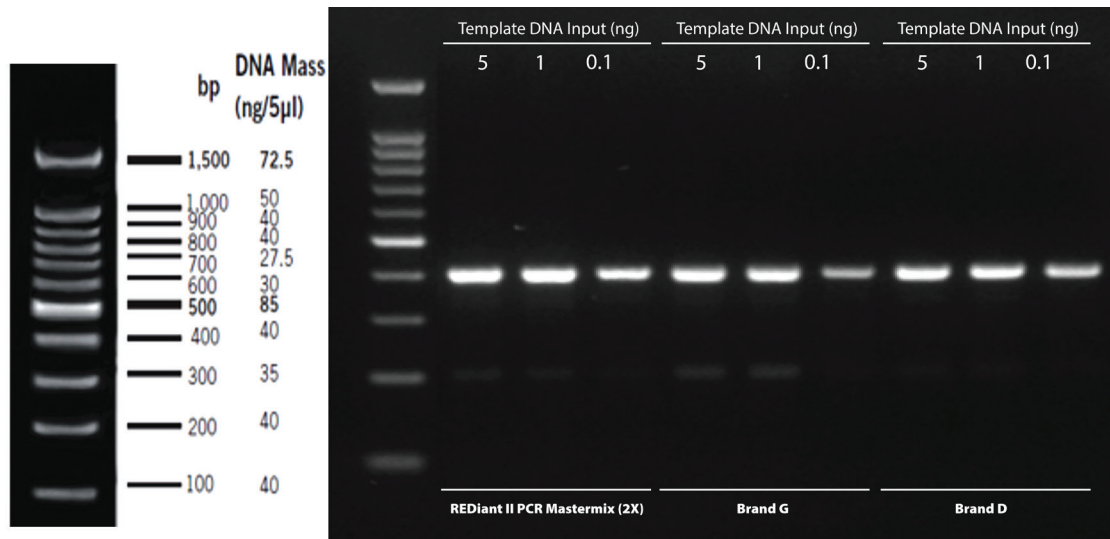
#### DNA fragments across different targets and length were amplified from

- (1) plasmid with an expected amplicon size of 407bp
- (2) bacteria sample with expected size of 1500bp
- (3) human gDNA with expected size of 3495bp
- (4) human gDNA with expected size of 5999bp.



## Higher Sensitivity

**REDiant II** displayed high sensitivity against competitor products. A strong band was yield even with dilution to 0.1ng.



Amplification of a 407bp fragment from plasmid DNA on different amount of DNA templates starting from 5ng to 0.1ng is shown above.

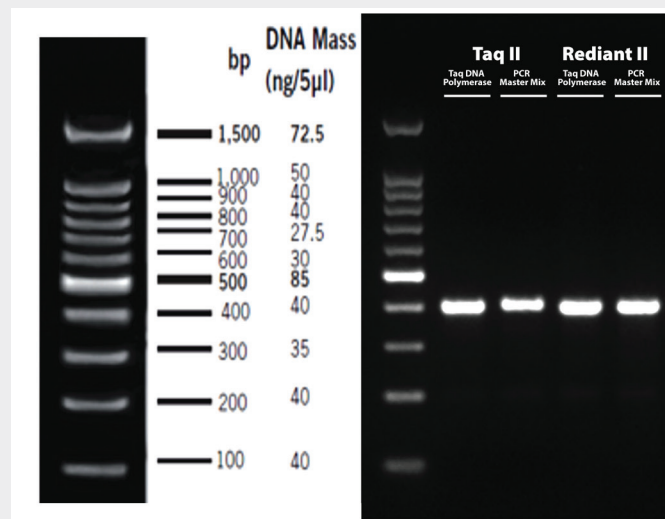
## Faster Processivity

**REDiant II** was optimised to work under fast thermal cycling conditions of 30s/kb with consistency.

**Amplification of 407bp DNA fragment from plasmid DNA using different Taq II formulated product:**

- (1) Taq II DNA polymerase
- (2) REDiant II Taq DNA polymerase
- (3) Taq II PCR master mix
- (4) REDiant II PCR master mix

Based on extensions at 30s/kb.



## Convenient & Ease of Handling

**REDiant II** contains red tracking dye to save time and prevent cross contamination between samples. The red tracking dye does not interfere with the PCR and serves as a loading dye for gel electrophoresis to monitor the progress of a running gel. The dye migrates at similar rate to a 500bp-800bp DNA fragment in a 1% agarose gel.

## Product Information

Product	Product Description	Product No.
REDiant II	REDiant II DNA Polymerase (recombinant), 500U	BIO-5116-500U
	REDiant II DNA Polymerase (recombinant), 2500U	BIO-5116-2500U
	REDiant II PCR Master Mix(2x), 200 reactions	BIO-5187-200
	REDiant II PCR Master Mix(2x), 1000 reactions	BIO-5187-1000



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