

## IDPROOF™ DNA Polymerase

<b>Cat #</b>	IDL008 500U
<b>Concentration</b>	1 µl contains 5 units
<b>Description</b>	IDPROOF™ is a high performance complex of enzyme with additives. It is used to improve the reliability and yield of conventional primer extension reaction. IDPROOF™ has two advantages: (1) high fidelity with an error frequency $1.6 / 10^6$ (or $0.0016 / 10^3$ ) during DNA synthesis and (2) IDPROOF™ increases the efficiency of polymerization reaction, resulting in a great percentage of extension reaction completion up to 10 kb to 30 kb. Optimum temperature is between 72-78° C and remains > 95% active following 1-hour incubation at 95° C.
<b>10X Reaction Buffer</b>	200 mM TrisHCl ( pH 8.8) 100 mM KCl 100 mM (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> 20 mM Mg SO <sub>4</sub> 1% Triton X-100 1 mg / ml bovine serum albumin ( BSA )
<b>Reaction Conditions</b>	Note: All reagents, including IDPROOF™, should be mixed immediately before use. DNA synthesis is performed in 100µl of mixture containing 20-200µM dNTPs, 0.3-1 µM Primers, 0.1- 0.250 ng of template DNA, 10 µl of 10 x reaction buffer and 2.5-5 units of IDPROOF™. Mix the reaction gently, centrifuge briefly and then overlay with light mineral oil. Initially, denature the reaction by incubating at 95° C for 5 minutes and then cool to 40-68° C for 5 minutes to allow the primers to anneal to the template DNA. It is important to add the reaction components in the following order: 1- H <sub>2</sub> O 2. 10x reaction buffer 3- dNTPs 4- DNA template and primers 5- IDPROOF™
<b>Storage</b>	-20° C in a constant temperature freezer. Stable for at least one year. Do not freeze-thaw multiple times.

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Note: Purchase of these products does not convey a license to perform any patented process. For laboratory use only. Not available in all world territories.

### **Selected IDProof™ DNA Polymerase References**

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