

Products	Cat #	Pack Size
Synergy™ DNA Polymerase	GC-005-0250	250 u
Synergy™ DNA Polymerase	GC-005-0500	500 u
Synergy™ DNA Polymerase	GC-005-1000	1000 u

## DESCRIPTION

**Synergy™** is a mix of thermostable components possessing 5'-3' DNA polymerase activity (KlenTherm™) and 3'-5' proof-reading activity (Pfu AccuTherm™). These components are optimized to achieve amplification of **35 kb or 10 kb products from lambda templates or genomic DNA**, respectively. A mixture of KlenTherm™ with AccuTherm™ provides more robust synthesis of longer amplification products.

## APPLICATION

1. **Long PCR** (10 kb genomic) with proof-reading

## CONCENTRATION

10 units/μl

## UNIT DEFINITION

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acid-insoluble form in 30 minutes at 72°C under the assay conditions (25 mM TAPS (tris-(hydroxymethyl)methyl-amino-propanesulphonic acid, sodium salt) pH 9.3 (at 25°C), 50 mM KCl, 2 mM MgCl<sub>2</sub>, 1 mM β-mercaptoethanol) and activated calf thymus DNA as substrate.

## 10 x REACTION BUFFER

160 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 670 mM Tris-HCl pH 9,1; 8% Glycerol, 2% DMSO, 35 mM MgCl<sub>2</sub>

Please note the difference between Synergy™ and BioTherm™ reaction buffers!

## STORAGE BUFFER

10 mM K-phosphate buffer pH 7.0, 100 mM NaCl, 0.5 mM EDTA, 1 mM DTT, 0.01% Tween 20, 50% glycerol (v/v)