

## SynergyN™ DNA Polymerase

Products	Cat #	Pack Size
SynergyN™ DNA Polymerase	GC-028-0250	250 u
SynergyN™ DNA Polymerase	GC-028-0500	500 u
SynergyN™ DNA Polymerase	GC-028-1000	1000 u

### DESCRIPTION

**SynergyN™** is a **mix** of thermostable polymerases possessing 5'-3' DNA polymerase activity that is optimized to amplify **longer GC-rich fragments** (KlenThermN™) **and 3'-5' proof-reading activity** (Pfu AccuTherm™). These components are optimized to achieve amplification of **15 kb products from genomic DNA**. A mixture of KlenThermN™ with Pfu AccuTherm™ provides more robust synthesis of longer GC-rich amplification products.

### APPLICATION

1. **Long PCR** (15 kb genomic) **with proof-reading**
2. **GC-rich templates**

### 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 -mercaptoethanol) and activated calf thymus DNA as substrate.

### 10 x REACTION BUFFER

160 mM (NH)<sub>4</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 SynergyN™ 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)