

DATA QUALITY SHEET



SynergyPlus DNA Polymerase

FOR RESEARCH USE ONLY

Cat. GC-048-0100, GC-048-0250, GC-048-0500, GC-048-1000, GC-048-5000

DESCRIPTION	Taq-based mixture with addition of pyrophosphatase for the amplification of long fragments. SynergyPlus DNA polymerase can amplify up to 20 kb from genomic DNA. It also have a 3'-5'-proof-reading activity.
CONCENTRATION	5 units/ μ l.
UNIT DEFINITION	One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTP's into acid-insoluble form in 30 minutes at 72 $^{\circ}$ C under the assay conditions (25 mM TAPS (tris-(hydroxymethyl)-methyl-amino-propanesulfonic acid, sodium salt) pH 9.3 (at 25 $^{\circ}$ C); 50 mM KCl; 2 mM MgCl ₂ ; 1 mM β -mercaptoethanol) and activated calf thymus DNA as substrate.
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).
REACTION BUFFER	Reaction buffer (10x): 160 mM (NH ₄) ₂ SO ₄ , 670 mM Tris-HCl pH 9,1; 8% Glycerol, 2% DMSO, 35 mM MgCl ₂
STORAGE TEMPERATURE	Store SynergyPlus Polymerase below 0 $^{\circ}$ C preferably at -20 $^{\circ}$ C, in a constant temperature freezer.
APPLICATION	- Very Long and accurate PCR
QUALITY CONTROL	Activity, SDS-PAGE purity, absence of endonucleases/ nickases and exonucleases.