

DATA QUALITY SHEET



BioThermAB DNA Polymerase

FOR RESEARCH USE ONLY

Cat. GC-008-0100, GC-008-0250, GC-008-0500, GC-008-1000, GC-008-5000

DESCRIPTION	BioThermAB polymerase offers all the benefits of BioTherm DNA polymerase plus an antibody-based, built-in hot start. The BioThermAB polymerase mix contains Hot Start Taq Monoclonal Antibody, which blocks polymerase activity prior to the onset of thermal cycling. This prevents primer-dimers and other artefacts resulting from low-level synthesis from non-specifically primed sites. The antibodies are quickly inactivated by the increased temperature of thermal cycling. BioThermAB polymerase requires no prolonged heating or denaturing step as do other hot-start methods, making BioThermAB polymerase more convenient and easy to use.
CONCENTRATION	5 units/ μ l.
UNIT DEFINITION	One unit of activity is the amount of enzyme required to incorporate 10 nmoles of dNTP into acid-insoluble material in 30 min at 72°C.
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	160 mM $(\text{NH}_4)_2\text{SO}_4$, 670 mM Tris-HCl pH 8.8 (at 25°C), 15 mM MgCl_2 , 0.1% Tween 20 The 10x reaction buffer (on request with or without MgCl_2) is delivered free of charge.
STORAGE TEMPERATURE	-20C
APPLICATION	- Hot-Start-PCR - PCR with high specificity
SHELF LIFE	2 years from date of receipt under proper storage conditions.
FUNCTIONAL ANALYSIS	Tested functionally in a unit activity test.