

## DNA Polymerase Alpha

(Human)

Cat. No.	size
E1075-01	50 units
E1075-02	200 units

**Unit Definition:** One unit is defined as the amount of enzyme required to incorporate 1 nmole of total nucleotide into acid-insoluble form in 60 minutes at 37°C.

**Storage Conditions:** Store at -20°C.

### References:

1. Podust, V.N., Lavrik, O.I., Nasheuer, H.-P., and Grosse, F. (1989) *FEBS Letters* 245, 14-16

### Storage Buffer:

20 mM Tris-HCl (pH 8.0 at 22°C), 0.25 mM EDTA, 50 mM NaCl, 1 mM  $\beta$ -mercaptoethanol, 0.1% Tergitol<sup>TM</sup> TMN, and 50% (v/v) glycerol.

### 1 x Reaction Buffer:

60 mM Tris-HCl (pH 8.0), 5.0 mM magnesium acetate, 0.3 mg/ml bovine serum albumin, 1.0 mM dithiothreitol, 0.1 mM spermine.

### Reaction buffer is supplied as:

**10 x DNA Polymerase Alpha - core:** 600 mM Tris-HCl (pH 8.0), 50 mM magnesium acetate, 10 mM dithiothreitol, 1 mM spermine.  
**24 mg/ml bovine serum albumin.**

### Assay Conditions:

60 mM Tris-HCl, pH 8.0, 5.0 mM magnesium acetate, 0.3 mg/ml bovine serum albumin, 1.0 mM dithiothreitol, 0.1 mM spermine, 0.05 mM each dCTP, dGTP, dTTP, dATP, (pH 7.0), [ $\alpha$ -<sup>3</sup>H]dATP, and 20  $\mu$ g activated calf thymus DNA. Incubation is at 37°C for 30 min. in a reaction volume of 50  $\mu$ l.

### Quality Control:

All preparations are assayed for contaminating endonuclease, 3'-exonuclease, and nonspecific single- and double-stranded DNase activities. Typical preparations are greater than 95% pure, as judged by SDS polyacrylamide gel electrophoresis.