

## Titan Thermo DNA Polymerase - Data Sheet

Cat. No.	Pack Size	Conc.
BTS0003	100 U SAMPLE	5 U/μl
BT10302	2000 U	5 U/μl

**Lot no:**

**Exp. Date:**

**Storage:** -20 °C

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of Titan HotTaq DNA Polymerase.

### Reagents Provided:

- Titan Thermo DNA Polymerase
- 10x Reaction Buffer Thermo: 500 mM Tris-HCl pH 9.5 at 25°C.
- 100 mM MgCl<sub>2</sub>

### Application:

- Primer extension
- MALDI-TOF mass spectrometry
- Mass-array

### Description:

Titan Thermo DNA Polymerase is a highly processive thermostable DNA polymerase suited for MALDI-TOF mass spectrometry and other primer extension platforms. The enzyme has only the 5'→3' polymerization-dependent exonuclease replacement activity and enhanced efficiency for incorporating unconventional nucleotides (labeled ddNTPs & acyclo nucleotides).

### Source:

Purified from an *E.coli* strain that carries an overproducing plasmid containing a modified gene of *Thermus aquaticus* DNA Polymerase.

### Storage and Dilution buffer:

50% glycerol (v/v), 20 mM Tris-HCl pH 8.7 at 25°C, 100 mM KCl, 0.1 mM EDTA and stabilizers.

### Quality data:

The enzyme is free of nicking and priming activities, exonucleases and non-specific endonucleases. Activity and stability tested via thermo cycling. The error rate per nucleotide per cycle is  $\sim 8 \times 10^{-5}$ . Estimated half life at 95°C is 1.5 hours.

### Unit definition:

One unit is defined as the amount of enzyme required to catalyze the incorporation of 10 nmol of dNTPs into an acid-insoluble form in 30 minutes at 74°C.

### Safety warnings and precautions:

This product is designed for research purposes and *in vitro* use only. According to common laboratory safety practice, it is recommended to wear protective clothing, gloves and safety glasses. Please refer to [www.bioatlas.com](http://www.bioatlas.com) for Material Safety Data Sheet of the product.

*Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required.*