

**PRODUCT DATA SHEET**

Name	Taq AB polymerase	
REF	Quantity	Components
Taq AB polymerase		
19-07	<b>200 U</b>	Taq AB polymerase (5 U/ $\mu$ l): 40 $\mu$ l A*: 500 $\mu$ l, B*: 500 $\mu$ l MgCl <sub>2</sub> (25 mM): 500 $\mu$ l
	<b>1000 U</b>	Taq AB polymerase (5 U/ $\mu$ l): 2x100 $\mu$ l A*: 2x1000 $\mu$ l MgCl <sub>2</sub> (25 mM): 2x1250 $\mu$ l
	<b>5000 U</b>	Taq AB polymerase (5 U/ $\mu$ l): 2x500 $\mu$ l A*: 10x1000 $\mu$ l MgCl <sub>2</sub> (25 mM): 10x1250 $\mu$ l
Taq AB polymerase (Green)		
19-07-g	<b>1000 U</b>	Taq AB polymerase (5 U/ $\mu$ l):2x100 $\mu$ l B*: 2x1000 $\mu$ l MgCl <sub>2</sub> (25 mM):2x1250 $\mu$ l
	<b>5000 U</b>	Taq AB polymerase (5 U/ $\mu$ l): 2x500 $\mu$ l B*: 10x1000 $\mu$ l MgCl <sub>2</sub> (25 mM):10x1250 $\mu$ l

A\* 10X PCR buffer without Mg<sup>2+</sup> for Taq AB polymerase

B\* 10X PCR buffer (Green) without Mg<sup>2+</sup> for Taq AB polymerase

**Enzyme property**

- Highly effective hot start – **1-3 minutes, 95 °C**
- 5' → 3' DNA polymerase and a 5' → 3' exonuclease activity
- Absence of 3' → 5' exonuclease activity
- Molecular weight ≈94 kDa
- Optimal conditions – 74 °C, at pH 8,8

- **Transferase activity:** adds a single deoxyadenosine (A) to the 3' ends of the PCR products, it is used for A/T cloning methods

<b>Unit Definition</b>	1 unit (U) of Taq DNA Polymerase = the amount of enzyme that will incorporate 10 nmol of dNTPs into acid-insoluble material within 30 min at 74°C
<b>Storage buffer</b>	20 mM Tris pH 8.0; 100 mM KCl; 0,1 mM EDTA; 1 mM DTT; 0,5 % Tween 20; 50% glycerol; 0,05% Nonidet P40
<b>Transport</b>	Max. 7 days at room temperature
<b>Storage</b>	Store at -18 ... -30°C
<b>Shelf life</b>	2 years

## Description

**Taq AB polymerase** is a highly purified recombinant Taq DNA polymerase enzyme blocked by two antibodies, which provides a highly effective hot start that enhances the specificity and sensitivity of PCR. It provides high yield of PCR products from different DNA templates.

### PCR buffer

- **10X PCR buffer without Mg<sup>2+</sup> for Taq AB polymerase** – is suitable for highly specific and sensitive PCR, multiplex PCR, Real-Time PCR.
- **10X PCR buffer (Green) without Mg<sup>2+</sup> for Taq AB polymerase** – is suitable for multiplex PCR and provides high yield of PCR products. The buffer contains a compound that increases sample density so that samples sink easily into wells of an agarose gel. The green buffer also contains two dyes (blue and orange) that separate to allow easy monitoring during electrophoresis. The blue dye migrates with ≈400 bp DNA fragments in a 1% agarose gel and orange blue migrates faster than ≈20 bp DNA fragments.

Use the green reaction buffer for direct-to-gel analysis after amplification and the colorless reaction buffer for amplifications where the dyes may interfere with post-amplification analysis such as fluorescence or absorbance testing.