AbTaq™ 2.0 Polymerase

Catalogue No.	Pack Size	Concentration
OP-TP-001-200U	**200U**	**5U/ul**
OP-TP-001-1000U	**1000U**	**5U/ul**
OP-TP-001-2500U	**2500U**	**5U/ul**

Product Description

AbTaq™ 2.0 Polymerase is a Taq DNA polymerase enzyme engineered for fast extension speeds, thermal stability and a hot start function. AbTaq™ 2.0 Polymerase is tolerant of common PCR inhibitors such as whole blood.

Product Contents

Catalog No.	Component Name	Size
OP-TP-001-200U	AbTaq 2.0 Polymerase	200U
	10x AbTaq Buffer	1 x 1ml
OP-TP-001-1000U	AbTaq 2.0 Polymerase	1000U
	10x AbTaq Buffer	1 x 5ml
OP-TP-001-2500U	AbTaq 2.0 Polymerase	2500
	10x AbTaq Buffer	2 x 7ml

Storage Condition and Stability

The enzyme and undiluted buffer solutions are stable when stored at -20°C for 1 year.

Unit Definition

One Unit will incorporate 10 nmole of deoxyribonucleotide into DNA in 30 minutes at 75°C.

Product Application

RT-PCR, genotyping, PCR, qRT-PCR

Specification	Features
Concentration	5U/ul
Recombinant Enzyme	Yes
Enzyme Activity	5' ->3' exonuclease activity
Sample/Target	Genomic DNA, plasmid DNA, cDNA etc.
With Hotstart	Yes
dNTPs included	No
Reaction Condition	At 1x concentration the reaction buffer assures optimal activity for AbTaq™ 2.0 Polymerase

Product Suggested Protocol

1. Thaw the buffer and store on ice. Briefly vortex and centrifuge all reagents before setting up the reactions.
2. In a sterile PCR reaction tube placed on ice, add the following components listed below:

Components	Volume	Final Concentration / Notes
Primer Fwd	Variable	200 nM
Primer Rev	Variable	200 nM
10x AbTaq reaction buffer	2.5ul	1x
10mM dNTP mix	0.5ul	200 μM
DNA template	Variable	0.1 – 100ng
2x AbTaq Accelerator Cocktail (optional)	12.5ul	Sold separately. May be replaced with water if not required
AbTaq 2.0 Polymerase at 5U/uL	0.1ul	0.5 – 2 U, adjusted based on user optimisation
Water, PCR Grade	Variable	To a final vol of 25ul

3. Mix and centrifuge briefly.
4. Suggested cycling conditions for short PCR products (<600bp):

Duration	Temp	No. of cycles	Optimisation Notes
1 min	95°C	1 cycle	Time may be extended to 8 min if crude samples containing blood/plasma/serum are used
25 sec	95°C	25 – 40 cycles	40 – 60 sec
45 sec	50 – 68°C		40 – 60 sec, temperature to depend on primer Tm
24 sec	68°C		To be adjusted based on an extension rate of 2kb/min

5. Run and visualise PCR products on a suitably stained agarose gel.