

Advantage® 2 Polymerase Mix

Catalog No.

639261

Amount

40 rxns

Lot Number

Specified on product label.

Description

The Advantage 2 Polymerase Mix allows efficient, accurate, and convenient amplification of DNA templates via long and accurate PCR. This enzyme mix is comprised of Titanium® *Taq* DNA Polymerase—a nuclease-deficient, N-terminal deletion mutant of *Taq* DNA Polymerase blended with TaqStart® Antibody to provide automatic hot-start PCR—and a minor amount of a proofreading polymerase. Enough enzyme mix and PCR buffer are supplied for 40 PCR reactions of 50 µl each.

Package Contents

- 40 µl 50X Advantage 2 Polymerase Mix
- 240 µl 10X Advantage 2 PCR Buffer
- 240 µl 10X Advantage 2 SA PCR Buffer

Storage Conditions

- -20°C

Shelf Life

- 1 year from date of receipt under proper storage conditions.

Shipping Conditions

- Dry ice (-70°C)

Product Documents

Documents for our products are available for download at takarabio.com/manuals

The following documents apply to this product:

- Advantage 2 PCR Kit Protocol-at-a-Glance (PT3281-2)

Quality Control Data

Raw Material Quality Control

The purified N-terminal deletion mutant of *Taq* DNA Polymerase was tested for enzymatic activity and PCR performance. Endonuclease, exonuclease, and DNA contamination assays were also performed.

PCR Performance

The N-terminal deletion mutant of *Taq* DNA Polymerase was serially diluted, and the diluted samples were used in separate PCR reactions with calf thymus DNA as a template. The optimal dilution per reaction was determined as the amount of enzyme required to amplify >20 ng/µl of a 3.5-kb target with minimal background.

Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: techUS@takarabio.comUnited States/Canada
800.662.2566
(101717)Asia Pacific
+1.650.919.7300Europe
+33.(0)1.3904.6880Japan
+81.(0)77.565.6999

Functional Quality Control**Amplification of cDNA fragments using SMARTer® RACE:**

Advantage 2 Polymerase Mix was tested by performing 5'- and 3'-rapid amplification of cDNA ends (RACE) using the SMARTer RACE 5'/3' Kit (Cat. Nos. 634858 & 634859). Reactions were performed as described in the User Manual using 50 ng of mouse heart total RNA and 5' or 3' transferrin receptor primers. The expected 2.1-kb and 3.1-kb products were observed on an agarose gel for 5'- and 3'-RACE respectively.

Amplification from a genomic DNA template:

Advantage 2 Polymerase Mix was tested in a 50- μ l PCR reaction using 100 ng of calf thymus genomic DNA as a template and primers specific for the bovine pancreatic trypsin inhibitor (BPTI) gene (0.4 μ M each). Two reactions were performed: amplification of a 3.5-kb fragment of the BPTI gene using the 10X Advantage 2 PCR Buffer and amplification of a 407-bp fragment in 10X Advantage 2 SA PCR Buffer. Conditions were set at:

95°C	1 min] 30 cycles
95°C	15 sec	
68°C	3 min	

5 μ l of each PCR product was run on a 1% TAE/agarose gel to confirm the presence of a 3.5-kb and 407-bp bands, respectively, with minimal background.

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

Advantage® 2 Polymerase Mix (Sample-Not for Sale)

CATALOG NO.

639261

NOTICE TO PURCHASER:

Our products are to be used for research purposes only. They may not be used for any other purpose, including, but not limited to, use in drugs, in vitro diagnostic purposes, therapeutics, or in humans. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without prior written approval of Takara Bio USA, Inc.

Your use of this product is also subject to compliance with the licensing requirements listed below and described on the product's web page at <http://www.takarabio.com>. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements.

TRADEMARKS:

©2017 Takara Bio Inc. All Rights Reserved.

All trademarks are the property of Takara Bio Inc. or its affiliate(s) in the U.S. and/or other countries or their respective owners. Certain trademarks may not be registered in all jurisdictions.

Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: techUS@takarabio.com

United States/Canada

Asia Pacific

Europe

Japan

800.662.2566

+1.650.919.7300

+33.(0)1.3904.6880

+81.(0)77.565.6999

10/17/2017