

Advantage® HD Polymerase Mix

Catalog No.

639262

Amount

40 PCR rxns

Lot Number

Specified on product label.

Description

Advantage HD Polymerase Mix allows highly accurate and efficient PCR amplification. Advantage HD exhibits superior proofreading abilities due to a robust 3'→5' exonuclease activity. Additionally, high specificity is achieved by inclusion of a hot start antibody that inhibits polymerase activity at ambient temperatures. When used with our optimized reaction buffer, Advantage HD Polymerase achieves the high fidelity, high sensitivity, and high specificity required for critical applications such as gene cloning and amplification of cDNAs for library construction. Sufficient reagents are provided for 40 reactions of 25 µl each.

Package Contents

- 10 µl Advantage HD Polymerase Mix (2.5 units/µl)
- 200 µl 5X Advantage HD Buffer (containing 5 mM MgCl₂)

Storage Conditions

- Store at -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 HD Polymerase Mix Protocol-at-a-Glance (PT3921-2)

Quality Control Data

RAW MATERIAL QUALITY CONTROL

Purity

No nicking activity, endonuclease activity, or exonuclease activity was detected after incubation of 0.6 mg of supercoiled pBR322 DNA, 0.65 mg of λ DNA, or 0.6 mg of λ-HindIII digest with 10 units of Advantage HD Polymerase Mix for 1 hr at 74°C.

Unit definition

One unit is the amount of Advantage HD Polymerase Mix that will incorporate 10 nmol of dNTP into acid-insoluble products in 30 min at 74°C using activated salmon sperm DNA as template.

Takara Bio USA, Inc.

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Certificate of Analysis

Cat. No. 639262

Advantage® HD Polymerase Mix

Reaction mixture for unit definition

100 mM Tris-HCl (pH 8.3 at 37°C)
10 mM KCl
2 mM MgCl₂
6 mM (NH₄)₂SO₄
0.1% TritonX-100
200 μM each dATP, dGTP, dCTP
100 μM [³H]-dTTP
0.001% BSA
0.4 mg/ml activated salmon sperm DNA

FUNCTIONAL QUALITY CONTROL

PCR performance

Good enzyme performance was confirmed by robust single fragment DNA PCR amplification using both λ DNA (amplified fragments: 8, 10, 12, and 15 kb) and human genomic DNA (amplified fragments: 0.5, 1, 2, 4, 6, and 8 kb) as templates.

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

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

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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.

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