## Certificate of Analysis



## Advantage® UltraPure PCR Deoxynucleotide Mix (10 mM each dNTP)

Catalog No. Amount Lot Number

639125 4 x 100 μl Specified on product label.

#### **Description**

Advantage UltraPure PCR Nucleotide Mix, which contains all four dNTPs in a premixed aqueous solution, is ready for use in PCR amplification, cDNA synthesis, and in vitro mutagenesis.

#### **Package Contents**

• 4 x 100 μl Advantage UltraPure dNTP Mix (10 mM each)

#### **Storage Conditions**

• Store at  $-20^{\circ}$ C.

#### **Expiration Date**

• Specified on product label.

#### **Storage Buffer**

• RNase-free Water

#### **Chemical Composition**

dATP: C<sub>10</sub>H<sub>14</sub>N<sub>5</sub>Na<sub>2</sub>O<sub>12</sub>P<sub>3</sub>

• dCTP: C<sub>9</sub>H<sub>14</sub>N<sub>3</sub>Na<sub>2</sub>O<sub>13</sub>P<sub>3</sub>

dGTP: C<sub>10</sub>H<sub>14</sub>N<sub>5</sub>Na<sub>2</sub>O<sub>13</sub>P<sub>3</sub>

dTTP: C<sub>10</sub>H<sub>15</sub>N<sub>2</sub>Na<sub>2</sub>O<sub>14</sub>P<sub>3</sub>

#### **Molecular Weights**

dATP: 535.1 g/mol

• dCTP: 511.1 g/mol

• dGTP: 551.1 g/mol

• dTTP: 526.1 g/mol

#### **Shipping Conditions**

• Dry ice

#### **Product Documents**

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

### **Quality Control Data**

#### 1. Heat stability assay

20 μl of Advantage UltraPure PCR Nucleotide Mix was subjected to 20 cycles of heating/cooling (95°C for 30 sec, 66°C for 30 sec, 72°C for 30 sec). Two standard 50 μl PCR reactions were performed using either 1 μl of the

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precycled mix or 1 µl of fresh Advantage UltraPure PCR Nucleotide Mix. Equal volumes of PCR product from the reactions were run for comparison on an agarose/EtBr gel. A single, specific band was observed for each sample. Equivalent yields of PCR product were also observed.

#### 2. Nuclease assay

Prior to mixing, each Advantage UltraPure dNTP was mixed with plasmid DNA and incubated at 37°C for 16 hours. No degradation was detected

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

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