PRODUCT: Advantage® UltraPure PCR Deoxynucleotide Mix

CATALOG No.	AMOUNT
639264	100 µl

LOT NUMBER
Specified on product label.

STORAGE BUFFER
RNase-free Water

STORAGE CONDITIONS
Store at –20°C.

SHELF LIFE
1 year from date of receipt under proper storage conditions.

SHIPPING CONDITIONS
Dry ice (–70°C)

DESCRIPTION
The Advantage UltraPure PCR Deoxynucleotide Mix is a premixed aqueous solution containing 10 mM of each dNTP; this Mix is ready for use in PCR, cDNA synthesis, and *in vitro* mutagenesis.

CHEMICAL COMPOSITIONS
dATP: $C_{10}H_{12}Li_4N_5O_{12}P_3$
dCTP: $C_9H_{12}Li_4N_3O_{13}P_3$
dGTP: $C_{10}H_{12}Li_4N_5O_{13}P_3$
dTTP: $C_{10}H_{13}Li_4N_2O_{14}P_3$

MOLECULAR WEIGHTS
dATP: 514.9 g/mol
dCTP: 490.9 g/mol
dGTP: 530.9 g/mol
dTTP: 505.9 g/mol

PACKAGE CONTENTS
- 100 µl Advantage® UltraPure PCR Deoxynucleotide Mix (10 mM each dNTP)

FOR RESEARCH USE ONLY

QUALITY CONTROL

1. **Heat stability assay**
   20 µl of Advantage UltraPure PCR Deoxynucleotide 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 precycled mix or 1 µl of fresh Advantage UltraPure PCR Deoxynucleotide Mix. The PCR products were then compared by electrophoresing an equal volume of each reaction 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**
   Before the individual Advantage UltraPure dNTPs were mixed together, each dNTP was incubated with plasmid DNA at 37°C for 16 hours. No degradation was detected.

APPROVED BY: _____

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