

## **SMARTer® PCR cDNA Synthesis Kit**

Catalog No.	Amount	Lot Number
634925	10 rxns	Specified on product label.

## Description

A kit for performing ten cDNA syntheses from nanogram amounts of total or poly A+ RNA. The kit utilizes our SMART® (Switching Mechanism At 5' end of RNA Template) technology coupled with PCR amplification to generate high yields of full-length double-stranded cDNA suitable for various applications, including Clontech PCR-Select<sup>™</sup> cDNA subtraction, nondirectional cloning and preparation of complex cDNA probes. The SMARTer PCR cDNA Synthesis Kit includes the same components as the original SMART PCR cDNA Synthesis Kit plus an improved SMARTer II A oligo and SMARTScribe<sup>™</sup> Reverse Transcriptase, which provide higher specificity and increased yield.

#### Package Contents

#### Box 1:

- $10 \,\mu l \,SMARTer \,II \,A \,Oligonucleotide (12 \,\mu M)$
- 5 µl Control Mouse Liver Total RNA (1 µg/µl)

#### **Box 2:**

- 10  $\mu$ 1 3' SMART CDS Primer II A (12  $\mu$ M)
- 40 µl 5X First-Strand Buffer (RNase-Free)
- 200 μ1 5' PCR Primer II A (12 μM)
- 100 µl dNTP Mix (10 mM of each dNTP)
- 50 µl DTT (100 mM)
- 1 ml Deionized H<sub>2</sub>O
- 12 µl SMARTScribe Reverse Transcriptase (100 U/µl)
- 10  $\mu$ l RNase Inhibitor (40 U/ $\mu$ l)

#### Box 3:

• 10 CHROMA SPIN<sup>TM</sup> +TE-1000 Columns

#### **Storage Conditions**

- Store CHROMA SPIN<sup>TM</sup> +TE-1000 Columns at room temperature.
- Store RNA and SMARTer II A Oligo at -70°C.
- Store all other components at  $-20^{\circ}$ C.

#### **Expiration Date**

• Specified on product label.

Takara Bio USA, Inc. 1290 Terra Bella Avenue, Mountain View, CA 94043, USA U.S. Technical Support: technical\_support@takarabio.com

# Certificate of Analysis

SMARTer PCR cDNA Synthesis Kit

### **Shipping Conditions**

- Box 1 & Box 2: Dry ice (-70°C)
- Box 3: Room temperature (20–22°C)

#### **Product Documents**

Documents for our products are available for download at <u>takarabio.com/manuals</u> The following documents apply to this product:

• SMARTer PCR cDNA Synthesis Kit User Manual (PT4097-1)

## **Quality Control Data**

A sample kit from each lot was tested as follows: 1  $\mu$ l (2 ng) of the Control Mouse Liver Total RNA was subjected to first-strand cDNA synthesis. 40  $\mu$ l of TE buffer was added to the first-strand reaction product, and 10  $\mu$ l of the diluted first-strand reaction product was used for PCR. A range of PCR cycles (18, 21, 24, and 27) was performed. 5  $\mu$ l of the PCR product was electrophoresed on a 1.2% agarose/EtBr gel. A moderately strong smear from 0.5–5 kb was observed.

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



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#### NOTICE TO PURCHASER:

Our products are to be used for **Research Use Only**. They may not be used for any other purpose, including, but not limited to, use in humans, therapeutic or diagnostic use, or commercial use of any kind. 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 our prior written approval.

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