

# In-Fusion® SMARTer® PCR cDNA Synthesis Kit

Catalog No.
634934 (Not sold separately)

Amount 10 rxns **Lot Number** Specified on product label.

## Description

The In-Fusion SMARTer PCR cDNA Synthesis Kit includes all the components needed to perform ten cDNA syntheses from nanogram amounts of total or poly A<sup>+</sup> RNA. The kit utilizes our unique SMART® (<u>S</u>witching <u>M</u>echanism <u>At</u> 5' end of <u>RNA T</u>emplate) technology coupled with PCR amplification to generate high yields of full-length double-stranded cDNA. The amplified cDNA is ready for directional cloning into the pSMART2IFD Linearized Vector included in the In-Fusion SMARTer Directional cDNA Library Construction Kit, or into any vector of your choice.

## Package Contents

**Box 1:** 

- 10 µl SMARTer V Oligonucleotide (12 µM)
- 5 µl Control Mouse Liver Total RNA (1 µg/µl)

## **Box 2:**

800.662.2566 (032816)

- 10 µl 3' In-Fusion SMARTer CDS Primer (12 µM)
- 40 µl 5X First-Strand Buffer (RNase-Free)
- 100 µl dNTP mix (10 mM each)
- 50 µl Dithiothreitol (100 mM)
- 12 µl SMARTScribe<sup>™</sup> Reverse Transcriptase (100 U/µl)
- 10  $\mu$ l RNase Inhibitor (40 U/ $\mu$ l)
- 200 µl 3' In-Fusion SMARTer PCR Primer (12 µM)
- 200 μl 5' PCR Primer II A (12 μM)
- 100 µl Glycogen (20 µg/µl)
- 1 ml Deionized Water
- 200 µl Sodium Acetate (3M; pH 4.8)

# Certificate of Analysis

In-Fusion SMARTer® PCR cDNA Synthesis Kit Certificate of Analysis (Not sold separately)

#### **Box 3:**

- 30 ml 1X Fractionation Column Buffer
- 20 columns CHROMA SPIN<sup>TM</sup> + TE-1000

#### **Storage Conditions**

- Store Box 1 at  $-70^{\circ}$ C.
- Store Box 2 at  $-20^{\circ}$ C.
- Store Box 3 at room temperature.

#### Shelf Life

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

## **Shipping Conditions**

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

#### **Product Documents**

Documents for Clontech® products are available for download at <u>www.clontech.com/manuals</u>. The following documents apply to this product:

• In-Fusion SMARTer Directional cDNA Library Construction Kit User Manual (PT5147-1)

## **Quality Control Data**

A sample kit from each lot was tested as follows: 10 ng of the Control Mouse Liver Total RNA was subjected to firststrand cDNA synthesis using 18, 21 and 24 PCR cycles. 5  $\mu$ l of PCR product was electrophoresed on a 1.2% agarose gel. A moderately strong smear from 0.5–5 kb was observed. cDNA synthesis was followed by LD-PCR and CHROMA SPIN purification according to the User Manual (PT5147-1). From a 100  $\mu$ l PCR reaction, the typical yield of ethanolprecipitated cDNA after CHROMA SPIN 1000 column fractionation was > 1.25  $\mu$ g.



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