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PRODUCT: SMART™ cDNA Library Construction Kit

CATALOG No. 634901

LOT NUMBER: 8040630

STORAGE CONDITIONS

- Store CHROMA SPIN™-400, 1X Fractionation Column Buffer and Deionized H₂O at room temperature.
- Store the BM25.8 and XL1-Blue *E. coli* host strains, the Control Poly A⁺ RNA, and the SMART IV™ Oligo at -70°C.
- Store all other components at -20°C.

SHELF LIFE

1 year from date of receipt under proper storage conditions.

SHIPPING CONDITIONS

Box 1: Dry ice (-70°C)

Box 2: Room temperature (20-22°C)

DESCRIPTION

A kit for making seven cDNA libraries from nanogram amounts of total or poly A⁺ RNA. The kit utilizes the patented SMART (Switching Mechanism At 5' end of RNA Transcript) Oligonucleotide to generate high yields of full-length ds cDNA. Control Poly A⁺ RNA, Control Insert and pre-digested λTriplEx2™ are included.

PACKAGE CONTENTS

Box 1:

- 25 µl CDS III/3' PCR Primer (12 µM)
- 10 µl SMART IV™ Oligonucleotide (12 µM)
- 30 µl 5X First-Strand Buffer
- 20 µl DTT (20 mM)
- 5 µl Control Poly A⁺ RNA (1.0 µg/µl)
- 60 µl Glycogen (20 µg/µl)
- 20 µl 5' PCR Primer (12 µM)
- 20 µl Proteinase K (20 µg/µl)
- 80 µl Sfil Enzyme (20 units/µl)
- 80 µl 10X Sfil Buffer
- 10 µl 100X BSA
- 30 µl λTriplEx2 Sfil (A & B) Arms (0.5 µg/µl)
- 20 µl T4 DNA Ligase (400 units/µl)
- 30 µl 10X DNA Ligation Buffer
- 20 µl ATP (10 mM)
- 500 µl *E. coli* BM25.8 (in 25% glycerol)
- 500 µl *E. coli* XL1-Blue (in 25% glycerol)
- 5 µl Control Insert (Sfil A & B) (50 ng/µl)
- 60 µl 5' Sequencing Primer (20 µM)
- 60 µl 3' Sequencing Primer (20 µM)
- 20 µl dNTP Mix (10 mM of each dNTP)
- 200 µl Sodium Acetate (3 M; pH 4.8)
- 20 µl Sodium Hydroxide (25 mM)

Box 2:

- 10 CHROMA SPIN-400 Columns
- 30 ml 1X Fractionation Column Buffer
- 5 ml Deionized H₂O (Milli-Q-filtered)

Other:

- Smart cDNA Library Construction Kit User Manual (PT3000-1)
- Smart cDNA Library Construction Kit Protocol-at-a-Glance (PT3000-2)
- λTriplEx2 Vector Information (PT3194-5)

FOR RESEARCH USE ONLY

QUALITY CONTROL DATA

See back of page.

APPROVED BY: _____

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QUALITY CONTROL DATA

0.5, 1.0, and 1.5 µl of SMART cDNA were separately ligated to 1 µl (0.5 µg/µl) of Sfil (A & B)-digested, dephosphorylated λTriplEx2 Arms, according to the User Manual. Each ligation reaction was packaged into λ phage particles using a commercially supplied λ packaging system and transduced into a culture of XL1-Blue *E. coli*, according to the manufacturer's recommendations. Ligation reactions produced 1–2 x 10⁶ clones with a recombination efficiency of ≥80%, determined by blue/white screening.

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