

# **SMARTer® Stranded RNA-Seq Components**

Catalog No(s).	Amount	Lot Number
634840 (Not sold separately; sold as a part of 634836)	12 rxns	Specified on product label.
634841 (Not sold separately; sold as a part of 634837)	24 rxns	Specified on product label.
634842 (Not sold separately; sold as a part of 634838)	48 rxns	Specified on product label.
634843 (Not sold separately; sold as a part of 634839)	96 rxns	Specified on product label.

# **Description**

The SMARTer Stranded RNA-Seq Kit includes the components needed to generate indexed cDNA libraries suitable for next-generation sequencing (NGS) on any Illumina® platform, starting from as little as 100 pg of polyA-purified or ribosomal RNA-depleted RNA. The kit utilizes our patented SMART® (Switching Mechanism At 5' end of RNA Template) technology, coupled with PCR amplification, to generate Illumina-compatible libraries without the need for enzymatic clean-up or adapter ligations. The directionality of the template-switching reaction preserves the strand orientation of the RNA, making it possible to obtain strand-specific sequencing data from the synthesized cDNA.

## **Package Contents**

#### **Box 1:**

634840 (12 rxns)	634841 (24 rxns)	634842 (48 rxns)	634843 (96 rxns)	
24 μ1	48 μ1	96 µ1	192 μ1	SMARTer Stranded Oligonucleotide (12 µM)*
5 µl	5 µ1	5 µl	5 µ1	Control Mouse Liver Total RNA (1 µg/µl)

#### **Box 2:**

634840 (12 rxns)	634841 (24 rxns)	634842 (48 rxns)	634843 (96 rxns)	
12 μ1	24 μ1	48 μ1	96 µl	SMART Stranded N6 Primer (12 μM)*
48 µl	96 µl	192 μ1	384 μ1	5X First-Strand Buffer (RNase-Free)
24 μ1	48 µl	96 µl	192 μ1	dNTP Mix (dATP, dCTP, dGTP, and dTTP, each at 10 mM)
12 μ1	24 μ1	48 μ1	96 µl	Dithiothreitol (DTT; 100 mM)
24 μ1	48 μ1	96 µl	192 μ1	SMARTScribe™ Reverse Transcriptase (100 U/µl)
1 ml	1 ml	2 x 1 ml	3 x 1 ml	Nuclease-Free Water
55 µl	55 µl	55 µl	55 µl	RNase Inhibitor (40 U/µ1)
$240~\mu l$	$480  \mu l$	960 µl	2 ml	Stranded Elution Buffer

<sup>\*</sup> Takara Bio USA, Inc. proprietary sequences.

### **Storage Conditions**

- Store Control Mouse Liver Total RNA and SMARTer Stranded Oligonucleotide at -70°C.
- Store Stranded Elution Buffer at -20°C. Once thawed, the buffer can be stored at Room Temperature.
- Store all other reagents at -20°C.

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U.S. Technical Support: techUS@takarabio.com

SMARTer® Stranded RNA-Seq Components

## **Shelf Life**

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

## **Shipping Conditions**

• Box 1 & Box 2: Dry ice (-70°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 Stranded RNA-Seq Kit User Manual

# **Quality Control Data**

A sample kit from each lot was tested as follows: 1 ng of Control Mouse Liver Total RNA was subjected to first-strand cDNA synthesis as described in the SMARTer Stranded RNA-Seq Kit User Manual. The cDNA was purified using an Agencourt AMPure XP Kit. The purified first-strand cDNA was then used as template in PCR for 16 cycles. PCR products were purified with AMPure XP beads, and resuspended in 20 µl of Stranded Elution Buffer. The PCR product was diluted 1:4, and 1 µl of the diluted PCR reaction was analyzed with an Agilent BioAnalyzer and a High Sensitivity DNA Kit (Agilent Cat. No. 5067-4626). A peak was manually integrated from 150 bp to 1,000 bp. To obtain the total library output, the concentration defined by BioAnalyzer software was multiplied by 4, yielding an output concentration of at least 7.5 nM.

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

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### CATALOG NOS.

634840, 634841, 634842, 634843

#### NOTICE TO PURCHASER:

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