

## SMARTer® Ultra® Low RNA Kit for Illumina® Sequencing Components

Catalog No.	Amount	Lot Number
634948 (Not sold separately; sold as a part of 634936)	100 rxns	Specified on product label.

### Description

The SMARTer Ultra Low RNA Kit Components allow high-quality cDNA synthesis starting from as little as 100 pg of total RNA or a few cells. The components have been designed and validated to prepare cDNA samples for sequencing and quantitation with the Illumina HiSeq®, MiSeq®, and Genome Analyzer™ sequencing instruments. SMART® technology offers unparalleled sensitivity and unbiased amplification of cDNA transcripts, enabling a direct start from your sample. Most importantly, SMART technology enriches for full-length transcripts and maintains the true representation of the original mRNA transcripts; these factors are critical for transcriptome sequencing and gene expression analysis.

### Package Contents

#### Box 1:

- 10x20 µl SMARTer II A Oligonucleotide (12 µM)
- 5 µl Control Total RNA (1 µg/µl)

#### Box 2:

- 200 µl 3' SMART CDS Primer II A (12 µM)
- 250 µl IS PCR Primer (12 µM)
- 400 µl 5X First-Strand Buffer (RNase-Free)
- 400 µl dNTP Mix (dATP, dCTP, dGTP, and dTTP, each at 10 mM)
- 100 µl Dithiothreitol (DTT; 100 mM)
- 200 µl SMARTScribe™ Reverse Transcriptase (100 U/µl)
- 10 ml Nuclease-Free Water
- 550 µl RNase Inhibitor (40 U/µl)
- 10 ml Dilution Buffer
- 10 ml Purification Buffer (10 mM Tris-Cl, pH 8.5)

### Storage Conditions

- Store Control Total RNA and SMARTer IIA Oligonucleotide at  $-70^{\circ}\text{C}$ .
- Store Dilution Buffer at  $-20^{\circ}\text{C}$ . Once thawed, the buffer can be stored at  $4^{\circ}\text{C}$ .
- Store Purification Buffer at  $-20^{\circ}\text{C}$ . Once thawed, the buffer can be stored at Room Temperature.
- Store all other reagents at  $-20^{\circ}\text{C}$ .

### Shelf Life

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

### Shipping Conditions

- Box 1 & Box 2: Dry ice ( $-70^{\circ}\text{C}$ )

---

#### Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA  
U.S. Technical Support: [techUS@takarabio.com](mailto:techUS@takarabio.com)

United States/Canada 800.662.2566 (020717)	Asia Pacific +1.650.919.7300	Europe +33.(0)1.3904.6880	Japan +81.(0)77.565.6999
--	---------------------------------	------------------------------	-----------------------------

## Product Documents

Documents for our products are available for download at [takarabio.com/manuals](http://takarabio.com/manuals)

The following documents apply to this product:

- SMARTer Ultra Low RNA Kit for Illumina Sequencing User Manual (PT5163-1)

## Quality Control Data

A sample kit from each lot was tested as follows: 100 pg of Control Total RNA were subjected to first-strand cDNA synthesis as described in the SMARTer Ultra Low RNA Kit for Illumina Sequencing User Manual (PT5163-1). The cDNA was purified using an Agencourt AMPure XP Kit. The purified first-strand cDNA was then used as template in PCR for 15 cycles. PCR products were purified with AMPure XP beads and re-suspended in 12 µl of Purification Buffer. 1 µl of the 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 400 bp to 9,000 bp. The resultant analysis indicated the cDNA size range was approximately from 400 bp to 10,000 bp. To get the total cDNA output, the concentration defined by BioAnalyzer software was multiplied by 12 µl; outputs ranged from 2 ng–7 ng.

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

---

## SMARTer® Ultra® Low RNA Kit for Illumina® Sequencing Components

### CATALOG NO.

634948

### NOTICE TO PURCHASER:

Our products are to be used for research purposes only. They may not be used for any other purpose, including, but not limited to, use in drugs, in vitro diagnostic purposes, therapeutics, or in humans. 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 prior written approval of Takara Bio USA, Inc.

Your use of this product is also subject to compliance with the licensing requirements listed below and described on the product's web page at <http://www.takarabio.com>. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements.

### TRADEMARKS:

**©2017 Takara Bio Inc. All Rights Reserved.**

All trademarks are the property of Takara Bio Inc. or its affiliate(s) in the U.S. and/or other countries or their respective owners. Certain trademarks may not be registered in all jurisdictions.

---

#### Takara Bio USA, Inc.

1290 Terra Bella Avenue, Mountain View, CA 94043, USA

U.S. Technical Support: [techUS@takarabio.com](mailto:techUS@takarabio.com)

**United States/Canada**

**Asia Pacific**

**Europe**

**Japan**

800.662.2566

+1.650.919.7300

+33.(0)1.3904.6880

+81.(0)77.565.6999

2/7/2017