

SMARTer® Ultra® Low Input RNA for Illumina® Sequencing Components - HV

Catalog No(s).	Amount	Lot Number
634822 (Not sold separately; sold as a part of 634820)	12 rxns	Specified on product label.
634825 (Not sold separately; sold as a part of 634823)	24 rxns	Specified on product label.
634827 (Not sold separately; sold as a part of 634826)	48 rxns	Specified on product label.
634831 (Not sold separately; sold as a part of 634828 & 634830)	96 rxns	Specified on product label.

Description

SMARTer Ultra Low Input RNA for Illumina Sequencing Components - HV allows high-quality cDNA synthesis when starting with very low input amounts of total RNA. The kit is regularly tested with 100 pg of total RNA, and has been shown (1) to perform robust cDNA synthesis with RNA from a single cell (10 pg equivalent). The kit has 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. This kit accommodates an input volume of up to 9 µl.

Package Contents

Box 1:

<u>634822</u> (12 rxns)	<u>634825</u> (24 rxns)	<u>634827</u> (48 rxns)	<u>634831</u> (96 rxns)	
12 µl	24 µl	48 µl	96 µl	SMARTer II A Oligonucleotide (24 µM)
5 µl	5 µl	5 µl	5 µl	Control Total RNA (1 µg/µl)

Box 2:

<u>634822</u> (12 rxns)	<u>634825</u> (24 rxns)	<u>634827</u> (48 rxns)	<u>634831</u> (96 rxns)	
12 µl	24 µl	48 µl	96 µl	3' SMART CDS Primer II A (24 µM)
24 µl	48 µl	96 µl	192 µl	IS PCR Primer (12 µM)
48 µl	96 µl	192 µl	384 µl	5X First-Strand Buffer (RNase-Free)
12 µl	24 µl	48 µl	96 µl	SMARTer dNTP Mix (dATP, dCTP, dGTP, and dTTP, each at 20 mM)
12 µl	24 µl	48 µl	96 µl	Dithiothreitol (DTT; 100 mM)
24 µl	48 µl	96 µl	192 µl	SMARTScribe™ Reverse Transcriptase (100 U/µl)
1 ml	2 ml	5 ml	10 ml	Nuclease-Free Water
66 µl	132 µl	264 µl	528 µl	RNase Inhibitor (40 U/µl)
1 ml	2 ml	5 ml	10 ml	Dilution Buffer
1 ml	2 ml	5 ml	10 ml	Purification Buffer (10 mM Tris-Cl, pH 8.5)

Takara Bio USA, Inc.

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Certificate of Analysis

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Storage Conditions

- Store Control Total RNA and SMARTer IIA Oligonucleotide at -70°C .
- Store Dilution Buffer at -20°C . Once thawed, the buffer can be stored at 4°C .
- Store Purification Buffer at -20°C . Once thawed, the buffer can be stored at Room Temperature.
- Store all other reagents at -20°C .

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 takarabio.com/manuals

The following documents apply to this product:

- SMARTer Ultra Low Input RNA for Illumina Sequencing - HV User Manual

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 Input RNA Kit for Illumina Sequencing - HV 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 15 cycles. PCR products were purified with AMPure XP beads, and resuspended 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.

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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.

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Takara Bio USA, Inc.

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