

SMART-Seq® mRNA

Catalog Nos.	Amount	Lot Number
634772 (Also sold as part of 634768)	24 rxns	Specified on product label.
634773 (Also sold as part of 634769, 634770, & 634771)	96 rxns	Specified on product label.

Description

SMART-Seq mRNA is part of our ultra-low RNA-seq products, used to generate high-quality cDNA from ultra-low amounts of total RNA (10 pg–100 ng) or directly from 1–1,000 intact cells. The kit has been shown to perform robust cDNA synthesis from one cell (equivalent to 10 pg total RNA), generating data with the highest sensitivity compared to previous generations. This kit incorporates locked nucleic acid (LNA) technology and improves on the SMART-Seq2 method. cDNA libraries generated by this kit have been tested for compatibility with Ion Torrent and Illumina® sequencing platforms. SMART® technology offers unparalleled sensitivity, unbiased amplification of cDNA transcripts, enrichment for full-length transcripts, and maintenance of the true representation of mRNA from the original sample—critical factors for transcriptome sequencing and gene expression analysis.

NOTE: This kit is an update to the SMART-Seq v4 Ultra Low Input RNA Kit (Cat. Nos. 634888–634894) but uses the SeqAmp™ CB PCR buffer instead of SeqAmp PCR buffer for improved bead pelleting and resuspension during the cDNA purification step.

Package Contents

Package 1:

<u>634772</u>	<u>634773</u>	
(24 rxns)	(96 rxns)	
5 µl	5 µl	Control Total RNA (1 µg/µl)

Package 2:

<u>634772</u>	<u>634773</u>	
(24 rxns)	(96 rxns)	
24 µl	96 µl	SMART-Seq v4 Oligonucleotide (48 µM)
24 µl	96 µl	PCR Primer II A (12 µM)
96 µl	384 µl	5X Ultra® Low First-Strand Buffer
48 µl	192 µl	SMARTScribe™ Reverse Transcriptase (100 U/µl)
48 µl	192 µl	3' SMART-Seq CDS Primer II A (12 µM)
60 µl	240 µl	RNase Inhibitor (40 U/µl)
2 x 1 ml	4 ml	Nuclease-Free Water
460 µl	1.85 ml	10X Lysis Buffer
2 x 1.7 ml	2 x 6.8 ml	Elution Buffer (10 mM Tris-Cl, pH 8.5)
50 µl	200 µl	SeqAmp DNA Polymerase
1.25 ml	5 ml	SeqAmp CB PCR Buffer (2X)

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Certificate of Analysis

Cat. Nos. 634772 & 634773

SMART-Seq mRNA

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Storage Conditions

- Store Control Total RNA at -70°C .
- Store 10X Lysis Buffer at -20°C . Once thawed, the buffer can be stored at 4°C .
- Store Elution Buffer at -20°C . Once thawed, the buffer can be stored at Room Temperature.
- Store all other reagents at -20°C .

Expiration Date

- Specified on product label.

Shipping Conditions

- Dry ice

Product Documents

Documents for our products are available for download at takarabio.com/manuals

The following documents apply to this product:

- SMART-Seq mRNA LP User Manual

Quality Control Data

A sample kit from each lot was tested as follows: 10 pg of Control Total RNA was subjected to first-strand cDNA synthesis as described in the SMART-Seq mRNA LP User Manual. The first-strand cDNA was then used as template for PCR using 17 cycles. PCR products were purified with NucleoMag NGS Clean-up and Size Select beads (Takara Bio, Cat. No. 744970), and then resuspended in 17 μl of Elution Buffer. 1 μl of the PCR reaction was analyzed with an Agilent 2100 Bioanalyzer and a High Sensitivity DNA Kit (Agilent, Cat. No. 5067-4626). The resultant analysis indicated the cDNA size range was approximately 300 bp to 10,000 bp. A peak was manually integrated from 300 bp to 9,000 bp. To calculate the total cDNA output, the concentration, defined by Bioanalyzer software, was multiplied by 17 μl . Outputs ranged from 3.4–17 ng.

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

SMART-Seq® mRNA

CATALOG NOS.

634772 & 634773

NOTICE TO PURCHASER:

Our products are to be used for **Research Use Only**. They may not be used for any other purpose, including, but not limited to, use in humans, therapeutic or diagnostic use, or commercial use of any kind. 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 our prior written approval.

Your use of this product is also subject to compliance with the licensing requirements, listed below if applicable, 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.

STATEMENT 275

SMART-Seq2 Technology. This product is sold under exclusive license from Ludwig Institute of Cancer Research, Ltd. and is covered by US Patent No. 10266894, Japanese Patent No. 6336080, and European Patent No. 3036336, and pending U.S. patent application and/or pending claims of foreign counterparts. For license information, please contact a Takara Bio USA, Inc. licensing representative by e-mail at licensing@takarabio.com.

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