

SMARTer® Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian Components

Catalog Nos.	Amount	Lot Number
634489 (Not sold separately; sold as a part of 634485)	24 rxns	Specified on product label.
634490 (Not sold separately; sold as a part of 634486)	48 rxns	Specified on product label.
634491 (Not sold separately; sold as a part of 634487)	96 rxns	Specified on product label.
634492 (Not sold separately; sold as a part of 634488)	192 rxns	Specified on product label.

Description

The SMARTer Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian Components are used with a SMARTer RNA Unique Dual Index Kit - 24U as part of SMARTer Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian to generate strand-specific RNA-seq libraries for Illumina® sequencing from 10–1,000 cells or 250 pg–10 ng inputs of purified total RNA. The Components incorporate Takara Bio’s proprietary SMART® (Switching Mechanism at the 5' end of RNA Template) technology and include refinements to the SMARTer method for stranded RNA-seq that simplifies the library preparation workflow and improves sequencing performance.

The SMARTer Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian was specifically designed to deliver highly sensitive and reproducible data from low-input RNA while keeping the workflow short and user friendly. The incorporated UMIs (Unique Molecule Identifiers) help customers perform UMI-based correction to obtain more reliable results. The kit does not require additional rRNA removal methods and produces sequencing libraries that retain strand-of-origin information. The integrated removal of cDNAs derived from rRNA—typically present in high abundance following cDNA synthesis from total RNA inputs—makes the workflow extremely sensitive, yielding data that is highly reproducible with low mapping to rRNA.

Package Contents

Package 1:

<u>634489</u> <u>(24 rxns)</u>	<u>634490</u> <u>(48 rxns)</u>	<u>634491</u> <u>(96 rxns)</u>	<u>634492</u> <u>(192 rxns)</u>	
110 µl	225 µl	450 µl	900 µl	SMART UMI-TSO Mix v3*
40 µl	80 µl	160 µl	320 µl	R-Probes v3*
5 µl	5 µl	5 µl	5 µl	Control Total RNA (1 µg/µl)

Package 2:

<u>634489</u> <u>(24 rxns)</u>	<u>634490</u> <u>(48 rxns)</u>	<u>634491</u> <u>(96 rxns)</u>	<u>634492</u> <u>(192 rxns)</u>	
40 µl	80 µl	160 µl	320 µl	ZapR® v3
30 µl	55 µl	110 µl	220 µl	SMART Pico Oligos Mix v3
100 µl	200 µl	400 µl	800 µl	5X First-Strand Buffer
50 µl	100 µl	200 µl	400 µl	SMARTScribe™ II Reverse Transcriptase
100 µl	200 µl	400 µl	800 µl	ZapR Buffer (10X)
30 µl	60 µl	100 µl	200 µl	RNase Inhibitor (40 U/µl)
100 µl	200 µl	2 x 200 µl	4 x 200 µl	SeqAmp™ DNA Polymerase
2 x 1.25 ml	4 x 1.25 ml	10 ml	2 x 10 ml	SeqAmp CB PCR Buffer (2X)

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Certificate of Analysis

Cat. Nos. 634489, 634490, 634491 & 634492

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(Not sold separately)

Sold as a part of 634485, 634486, 634487 & 634488

634489 (24 rxns)	634490 (48 rxns)	634491 (96 rxns)	634492 (192 rxns)	
100 µl	200 µl	400 µl	800 µl	PCR2 Primers v3
2 x 1.25 ml	4 x 1.25 ml	10 ml	2 x 10 ml	Nuclease-Free Water
1.25 ml	2 x 1.25 ml	5 ml	2 x 5 ml	Tris Buffer (5 mM)
0.5 ml	1 ml	1 ml	2 x 1 ml	10X Lysis Buffer

* Takara Bio proprietary sequences

Storage Conditions

- Store Package 1 components at -70°C .
- Store Package 2 components at -20°C .
- Do not freeze R-Probes v3 more than 3 times. We recommend aliquoting into multiple vials to avoid repeated freeze/thaw cycles

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:

- SMARTer Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian User Manual

Quality Control Data

To assess the quality of the reagents in the SMARTer Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian Components, 250 pg of Control Total RNA (Human Brain) was converted to an Illumina-ready cDNA sequencing library with the SMARTer Stranded Total RNA-Seq Kit v3 - Pico Input Mammalian Components as described in the user manual, using 5 cycles in PCR1 and 16 cycles in PCR2 steps. Purified libraries were quantified using the Qubit 2.0 Fluorometer (Life Technologies) with a dsDNA HS Assay Kit, resulting in an output of at least 4 ng/µl. Libraries were diluted to 2 ng/µl, and 1 µl of the dilution was analyzed with an Agilent Bioanalyzer and High Sensitivity DNA Kit (Agilent, Cat. No. 5067-4626). The Bioanalyzer electropherogram showed a broad distribution from 200–1,000 bp with an average size in the 350–510 bp range. The libraries were sequenced on an Illumina platform and confirmed to contain $\leq 20\%$ of the reads mapping to rRNA (5S, 5.8S, 18S and 28S) and $\leq 7\%$ of the reads mapping to mitochondrial ribosomal RNA (m12S and m16S).

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

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CATALOG NOS.

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STATEMENT 455

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