

# PicoPLEX® Gold Single Cell DNA-Seq Kit

Catalog Nos. Amount Lot Number

R300669 24 rxns Specified on product label. R300670 96 rxns Specified on product label.

# **Description**

The PicoPLEX Gold Single Cell DNA-Seq Kit is designed to generate high-quality DNA libraries from single cells for sequencing on Illumina® platforms. The kit is based on our patented PicoPLEX technology and yields libraries with superior reproducibility from 1–5 mammalian cells or genome equivalents of gDNA as input, providing reliable results from challenging samples such as formalin-fixed single cells.

The kit features a streamlined workflow consisting of four steps—from input to amplified NGS libraries—that can be completed in less than four hours. The kit uses high-fidelity enzymes and optimized primers and is suitable for accurate and reproducible profiling of copy number variants (CNVs), single-nucleotide variants (SNVs), indels, and other small structural variants. The kit is compatible with single cells and purified DNA from humans, animals, and bacteria, as well as single flow-sorted chromosomes.

# **Package Contents**

R300669 (24 rxns)	R300670 (96 rxns)	
116 μ1	461 µl	Cell Extraction Buffer
5 μ1	20 μ1	Cell Extraction Enzyme
208 μ1	835 μ1	PreAmp Buffer
31 μ1	130 μl	PreAmp Enzyme
500 μ1	2 x 1,000 μl	Amplification Buffer
60 μ1	240 μ1	Amplification Enzyme
500 μ1	1,000 μ1	Nuclease-Free Water

### **Storage Conditions**

• Store at -20°C.

### **Expiration Date**

Specified on product label.

### **Shipping Conditions**

Dry ice

## **Product Documents**

Documents for our products are available for download at <u>takarabio.com/manuals</u> The following documents apply to this product:

PicoPLEX Gold Single Cell DNA-Seq Kit User Manual

PicoPLEX Gold Single Cell DNA-Seq Kit

# **Quality Control Data**

A sample kit from each lot was tested as follows: 16.7 pg of NA12878 gDNA was used in quadruplicate as input for PicoPLEX Gold Single Cell DNA-Seq Kit to convert to Illumina sequencing-ready libraries as described in the User Manual. Cell extraction was followed by 16 cycles of Pre-Amp in  $20 \mu l$  volume, purification with AMPure beads, and 12 cycles of PCR amplification with dual barcoding oligos. Libraries were further purified using AMPure beads and eluted in  $20 \mu l$  of TE buffer.

Purified libraries were quantified using the Qubit 2.0 Fluorometer (Thermo Fisher Scientific) with a dsDNA HS Assay Kit, resulting in an output of at least 1  $\mu$ g total DNA yield. The libraries were then sequenced on an Illumina NextSeq<sup>®</sup> platform and produced a minimum number of 20 million reads per library with an average insert size of 300 bp, with <5% reads not mapping to the human genome, <1% adaptor reads, a balanced GC distribution, and <3% mismatch rate.

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

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## CATALOG NOS.

R300669 & R300670

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#### **STATEMENT M54**

This product is covered by the claims of U.S. Patent Nos. 7,704,713 and its foreign counterparts.

### **STATEMENT 325**

Patent pending. For further information, please contact a Takara Bio USA licensing representative by email at licensing@takarabio.com.

### **STATEMENT 328**

This product is protected by U.S. Patents 8,206,913 and corresponding foreign patents. Additional patents are pending. For further license information, please contact a Takara Bio USA licensing representative by email at licensing@takarabio.com.

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