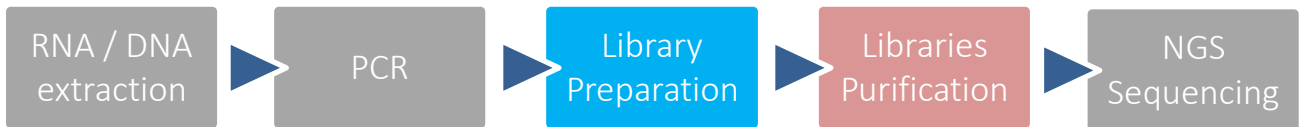




DeepChek[®] Solution for Next Generation Sequencing (NGS)

Comprehensive Enzymatic-Based DNA Library Preparation Kits for a Large Variety of NGS Platforms



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DeepChek® NGS LIBRARY PREPARATION V2

Product Highlights

| | |
|-----------------------|--|
| Type in DNA input | Small Genomes, PCR Amplicons, and Plasmids One library prep kit for many applications |
| Validated Samples | FFPE, plasma, whole blood, sputum, stools, solid & liquid culture |
| Species Category | Any Species, Fungal, Yeast, Drosophila, Zebrafish, Nematode, Plant, Mammalian, Bacteria, Rat, Mouse, Virus, Human |
| Assay Time | ~5.5 hours from DNA extraction to normalized library. (Library prep time: ~90 minutes). |
| Hands-On Time | 20 minutes |
| Mechanism of Action | Enzymatic fragmentation |
| Multiplexing | Up to 384 uniquely indexed samples may be pooled and sequenced together <u>Available formats:</u> 24rx/run, 48rx/run, 96rx/run, 384rx/run |
| Input Quantity | 100 pg to 1 µg |
| Species Details | Compatible with any species |
| Target Insert Size | 200 bp–1.5 kb |
| Method | 16s rRNA Sequencing, 18s rRNA Sequencing, Amplicon Sequencing, De Novo Sequencing, Whole-Genome Sequencing... |
| Variant Class | Single Nucleotide Polymorphisms (SNPs), Structural Variants |
| Automation Capability | Liquid Handling Robots |
| System Compatibility | iSeq 100, MiniSeq, MiSeq, MiSeq Dx, NextSeq 550, ... |
| Nucleic Acid Type | DNA |
| Technology | Sequencing |

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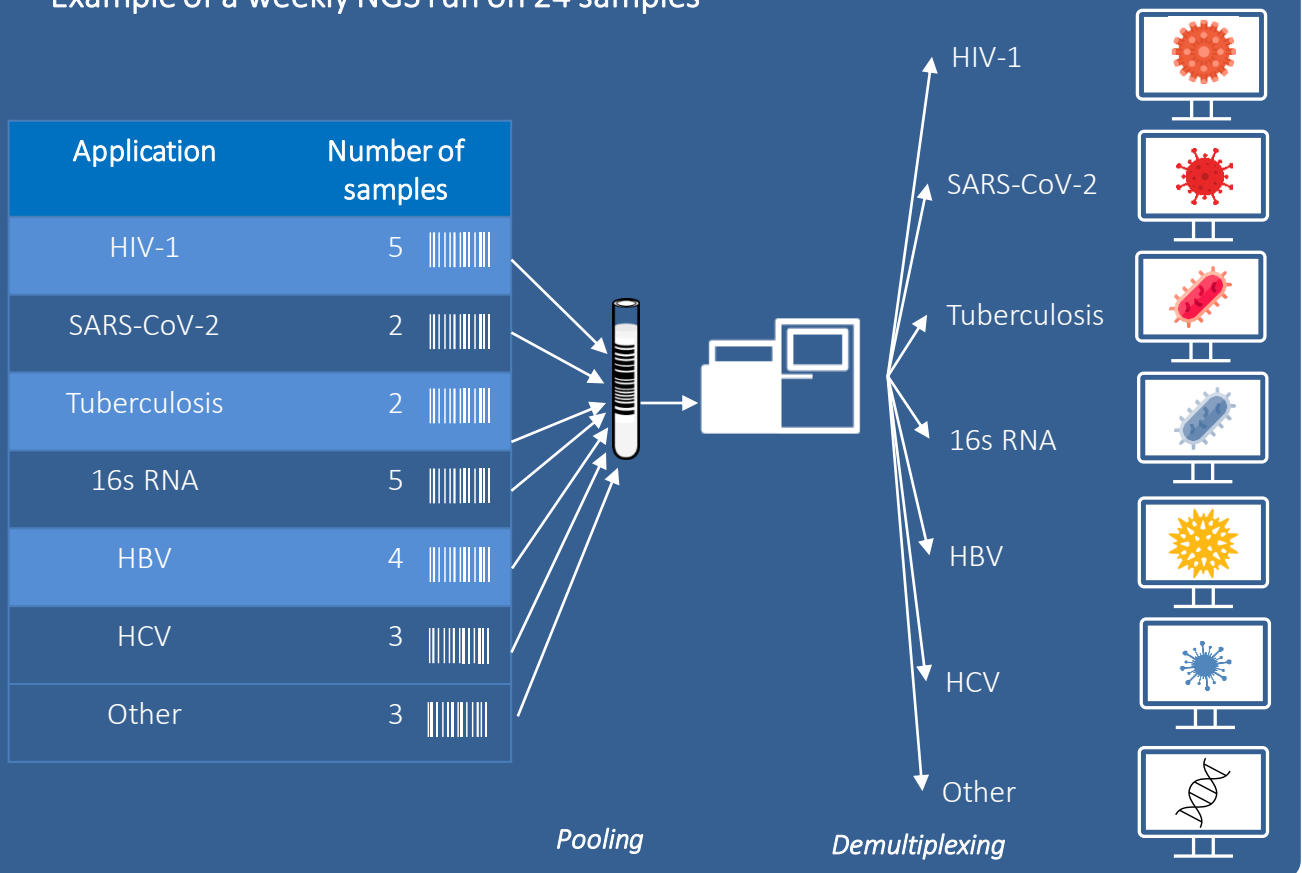
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DeepChek® NGS LIBRARY PREPARATION V2

Flexible Pooling & Multiplexing

- The DeepChek® assays & software can be used through NGS on a large variety of microbiology applications **simultaneously**, providing high efficiency
 - Optimize NGS sequencing costs
 - Optimize turnaround time
 - Bring NGS capacity to any lab settings
- Pick your applications from a wide catalog of applications and customize your NGS panel/run for your needs

Example of a weekly NGS run on 24 samples

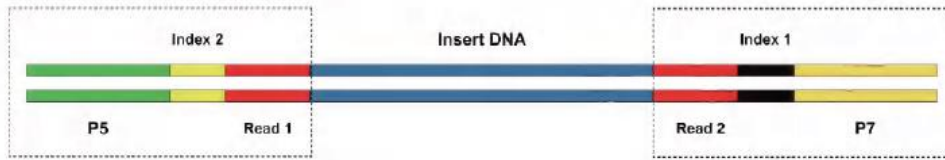


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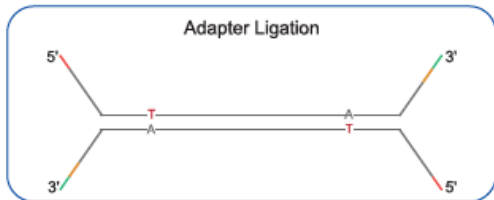
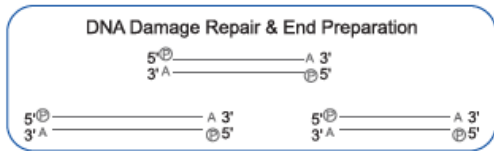
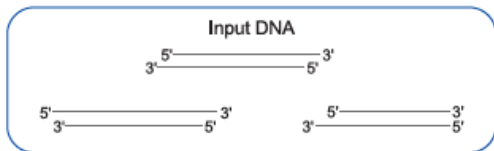
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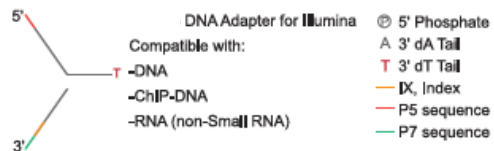
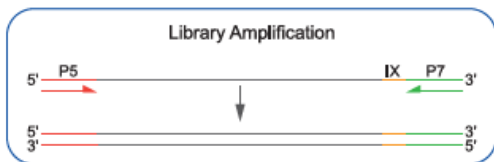
Workflow



Construction of 2 –ended index library for Illumina



PCR-Free Library ends here



- DeepChek® NGS LIBRARY PREPARATION V2 is a DNA library preparation kit specifically developed for Illumina high-throughput sequencing platform.
- In this kit, DNA fragmentation, end repair and dA-tailing are combined into one step, and without purification, the products are directly subject to adapter connection, library enrichment and sorting.
- 100 pg to 1 µg of template DNA can be converted into a library specific for Illumina high-throughput sequencing platform.
- Without mechanical interruption to the genome, the library preparation process is simplified, and the operation time is shortened, so it is suitable for the preparation of PCR and PCR-free libraries.
- This kit can be perfectly compatible with DNA from different sources and with different inputs, and it is only needed to adjust the fragmentation time according to the target insert fragment size to obtain a library of required fragment size.
- All the reagents provided in the kit have undergone rigorous quality control and functional testing, to ensure the optimal stability and repeatability of library preparation.

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Product compatibility:

- For different initial inputs, this assay has the same distribution range within the same fragmentation time, with uniform peak pattern and a wide compatible input range (100 pg–1 μg).
- Extensive compatibility of species and template types.
- Good compatibility of FFPE specimens of different quality levels, plasma, whole blood, sputum, solid & liquid culture...

Library yield:

- Compared with similar products of Company K* and Company Q*, the *DeepChek® NGS Library Preparation Assay* had a higher library conversion rate. The library conversion rate was up to 90% at 1 μg input.
- The *DeepChek® NGS Library Preparation Assay* had an excellent library amplification efficiency. Under the same cycle number, with 100 ng and 10 ng of gDNA inputs, the

yield of the library prepared by the *DeepChek® NGS Library Preparation Assay* was 3 times that of the similar products of Company K* and Company Q*.

Sequencing data quality:

- Compared with similar products of Company K*, Company N* and Company Q*, in sequencing data quality, *DeepChek® NGS Library Preparation Assay* had excellent performance in mapping rate and coverage rate, with high sequencing quality.

Product repeatability:

- *DeepChek® NGS Library Preparation Assay* had good repeatability between wells and batches.

Product stability:

- *DeepChek® NGS Library Preparation Assay* had good stability under pressurization. Under different pressurization conditions, the final library distribution basically remained unchanged.

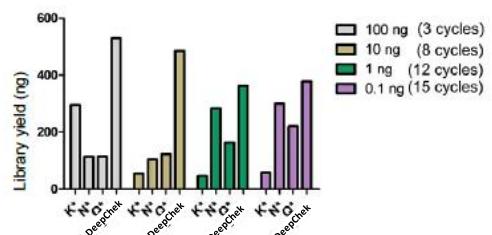
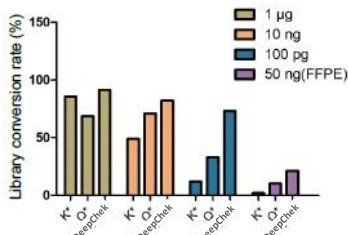
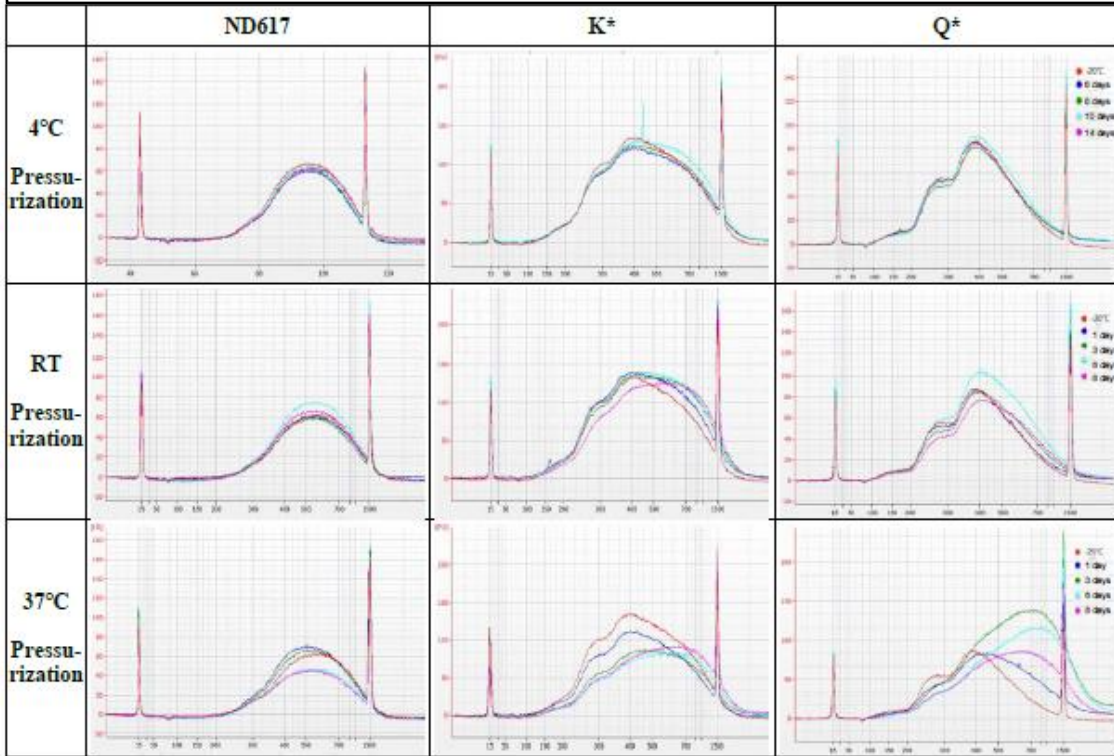
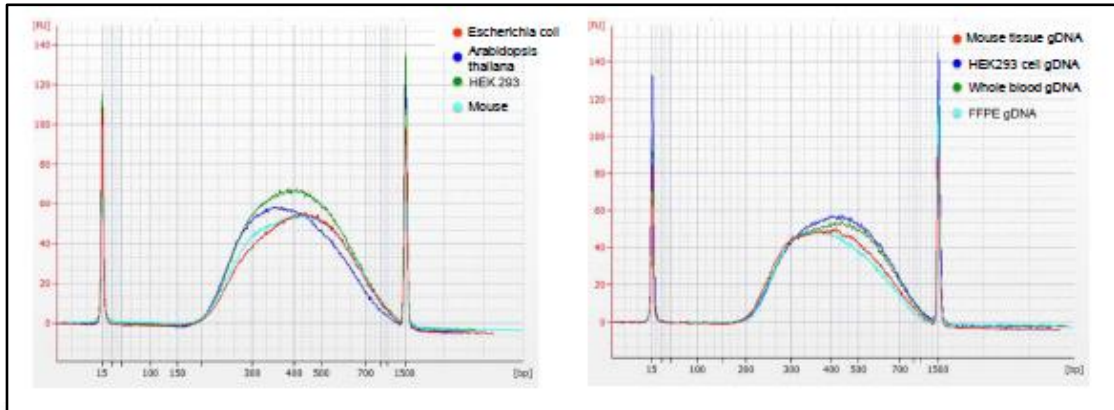
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Performances

Library Size Distribution



Library conversion rate

Library yields under different initial inputs

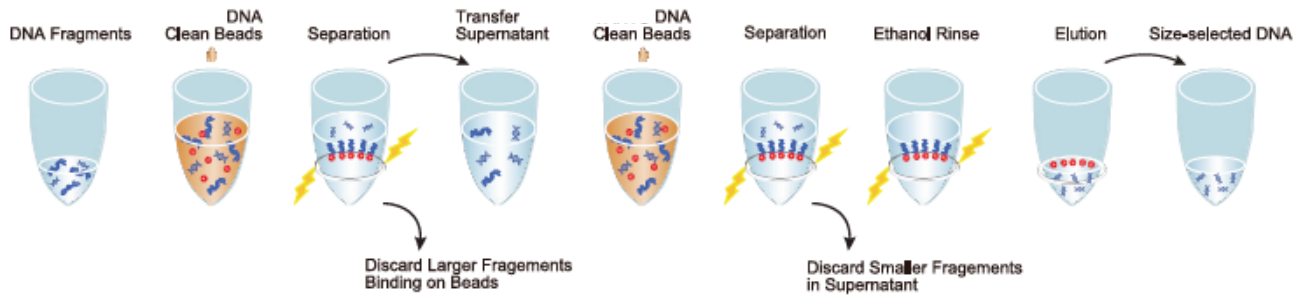
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DeepChek® NGS Clean-up beads

Seamless Alternative for AMPure XP Beads

- Seamless alternative for AMPure® XP Beads: same usage, similar yield, and identical size-distribution.
- Compatible with almost all current protocols for DNA library preparation.
- Cost-effective.



References

Library preparation for Illumina

| | |
|--|-----------------|
| DeepChek® NGS LIBRARY PREPARATION V2 (24 indexes) | 116B24+124B24 |
| DeepChek® NGS LIBRARY PREPARATION V2 (48 indexes) | 116B48+124B48 |
| DeepChek® NGS LIBRARY PREPARATION V2 (96 indexes) | 116B96+124B96 |
| DeepChek® NGS LIBRARY PREPARATION V2 (384 indexes) | 116B384+124B384 |

Library preparation for Ion Torrent

| | |
|--------------------------------------|----------------|
| DeepChek® NGS LIBRARY PREPARATION IT | Available soon |
|--------------------------------------|----------------|

Library preparation for MGI

| | |
|---------------------------------------|----------------|
| DeepChek® NGS LIBRARY PREPARATION MGI | Available soon |
|---------------------------------------|----------------|

Library preparation for Nanopore

| | |
|--------------------------------------|----------------|
| DeepChek® NGS LIBRARY PREPARATION NP | Available soon |
|--------------------------------------|----------------|

DNA Clean-up

| | |
|--|-----------|
| DeepChek® NGS Clean-up beads (60mL) | N411-02 |
| DeepChek® 96x0.2 mL wells plate (25 units) | B70501-01 |

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Please contact the ABL support team to request more information & registration status of the above mentioned products for your respective territories.

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