

# MagicPrep™ NGS System.

LIBRARY PREPARATION THAT JUST WORKS.



Learn more at [tecan.com/magic](http://tecan.com/magic)



# What is MagicPrep NGS?

Tecan's MagicPrep NGS is a new type of automation solution for NGS library preparation that just works. It offers a simple solution that anyone can use. Tecan's MagicPrep NGS system comes with numerous benefits and features:

- **>99% mean success rate\***. Confidently generate NGS libraries with push button ease. The pre-aliquoted reagents, pre-optimized scripts, and robust automation provide a reliable solution for library preparation with minimal errors.
- **Set up a run in 10 minutes**. Spending hours or days on manual pipetting is over. Start a MagicPrep NGS run in less than 10 minutes and then just walk away.
- **No installation. No scripting. No master mixes**. Eliminate costly mistakes during library preparation with optimized reagents, consumables and simple setup for error-proof operation and consistent data. Anyone can do it.

Combining novel and proven technologies the MagicPrep NGS system offers consistent, reproducible results while minimizing the possibility of user errors. MagicPrep NGS performs the burdensome process of library preparation while you focus on your next experiment.

## SIMPLE, INTUITIVE WORKFLOW



### STEP 1

Add your samples to the sample deck.



### STEP 2

Insert the reagent cartridge and sample deck into the MagicPrep NGS system.



### STEP 3

Start the run.

## INCREASE YOUR PRODUCTIVITY

The goal of science is to gain biological insights, understand our world and advance human health. How much further could you advance science if you didn't have to spend time on library preparation? MagicPrep NGS reduces the time you spend on tedious library preparation so that you can focus on analyzing data, writing a publication, doing your next experiment, or even just talking to a colleague.

\*Success rate is based on mean internal data. Sample quality and variability may have an impact on the success rate. For more information, visit [tecan.com/magicprep-ngs/reliability](https://tecan.com/magicprep-ngs/reliability)

# Library prep that just works.

MagicPrep NGS combines automation, software, scripts, reagents, and consumables into a seamless workflow to generate libraries for Illumina sequencing platforms. The MagicPrep NGS kits provide all the reagents and consumables necessary for each run. The dedicated reagents and consumables enable pre-optimized workflows eliminating the need for scripting, and optimization while simplifying the run setup.

**NO INSTALLATION. NO SCRIPTING. NO MASTER MIXES. JUST MAGIC.**



With the MagicPrep NGS system, the only thing you need to provide are your samples. No need to make master mixes or buffers, no need to buy additional reagents, and no scripting or optimizing the workflow. Simply add your samples, insert the cartridges into the instrument, start the run, and continue your day.

## TRUE WALK-AWAY LIBRARY PREPARATION



What's the point of automation that requires you to babysit the instrument? The MagicPrep NGS system provides true walk-away automation with no user interaction required. Now you can start your run at any time - after lunch, before going home or even on a Friday afternoon. MagicPrep NGS stores your libraries for up to 65 hours, so retrieve your finished libraries when you are ready.

# Reliability.

## >99% MEAN SUCCESS RATE\*.

It's not magic, it just looks that way! A complex process like library preparation can produce many errors and variation. With a mean success rate of >99%\*, you can trust MagicPrep NGS even with your most precious samples. Every aspect of the MagicPrep NGS system has been optimized for reliability and reproducibility. In addition to the hardware, reagents and consumables, the simple, intuitive run setup reduces variations or errors between operators that can result in differences in the library quality and data to provide more consistent libraries regardless of the user's experience level.

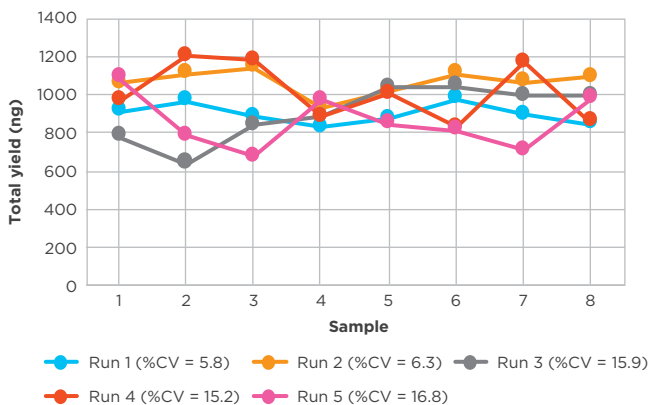


Figure 1: **Library consistency between runs on the same instrument.** The MagicPrep NGS system was used with an input of 100 ng of K562 total RNA. A total of 5 runs were performed on a single instrument. The library yield of each sample from these runs is plotted in the graph. The low variability in yield demonstrates that MagicPrep NGS provides consistent library preparation between runs.

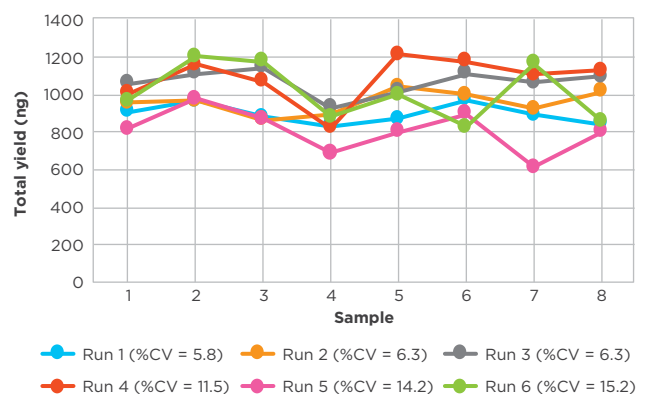


Figure 2: **Library consistency between runs across instruments.** The Revelo DNA-Seq Enz for MagicPrep NGS kit was used to generate libraries from intact genomic DNA. A total of 6 runs were performed on 3 different instruments. The total library yield of each sample from these runs is plotted in the graph. The low variability in yield demonstrates that MagicPrep NGS provides consistent library preparation regardless of the instrument used.

# High Quality Reagents for MagicPrep NGS.

The reagent kits for MagicPrep NGS leverage Tecan's proprietary technologies as well as novel technology specifically designed to provide a simple, fully walk-away solution. The MagicPrep NGS reagent kits include DimerFree® technology to minimize the formation of adaptor dimers regardless of input amount, consistent enzymatic DNA fragmentation regardless of input amount or GC content and high-fidelity library amplification for accurate library representation. MagicPrep NGS reagents allow you to generate high quality libraries across a broad input range without the burden of manual library preparation.

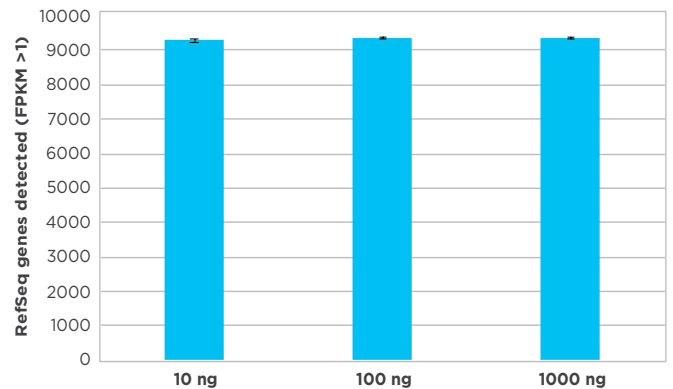
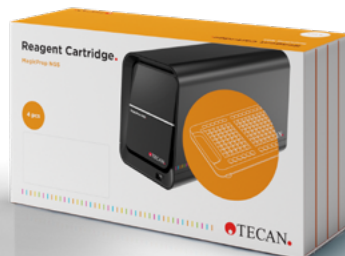


Figure 3: **Consistent gene detection in mRNA-Seq libraries generated with MagicPrep NGS.** Libraries were generated starting with 10 (16 libraries), 100 (24 libraries) or 1000 ng (16 libraries) of K562 total RNA. Data analysis showed similar general library metrics and consistent gene detection across the 100-fold difference in input.

## A COMPLETE, RELIABLE LIBRARY PREPARATION SOLUTION



**SAMPLE  
DECKS**



**REAGENT  
CARTRIDGES**



**MAGNETIC  
BEADS**

MagicPrep NGS kits incorporate all the advantages of Tecan's manual kits but are formatted for use on the MagicPrep NGS instrument, saving hours of hands-on time.

- Broad input range and volume for easy sample addition
- DimerFree technology eliminates generation of adaptor dimers
- Unique dual index (UDI) adaptors for flexible multiplexing and detection of index hopping

## REVELO mRNA-SEQ FOR MAGICPREP NGS

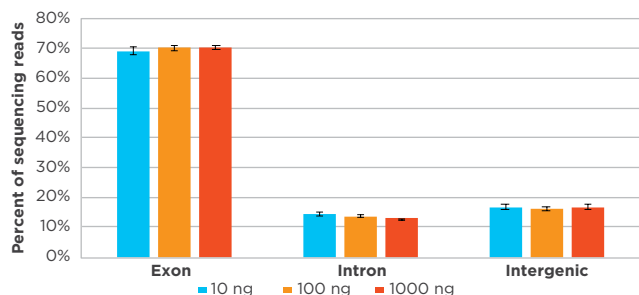


Figure 4: **Consistent performance across a broad input range.** The Revelo mRNA-Seq for MagicPrep NGS kit was used to generate libraries from 10 ng, 100 ng and 1000 ng of K562 total RNA. All libraries provided similar library metrics regardless of input.

The Revelo mRNA-Seq for MagicPrep NGS kit provides all the reagents and consumables necessary for poly(A) selection and mRNA-Seq library construction from total RNA. This kit and the MagicPrep NGS system provide a simple solution for the automated preparation of mRNA-Seq libraries.

- Broad input range from 10-1000 ng
- Efficient selection of polyadenylated transcripts

## REVELO DNA-SEQ ENZ FOR MAGICPREP NGS

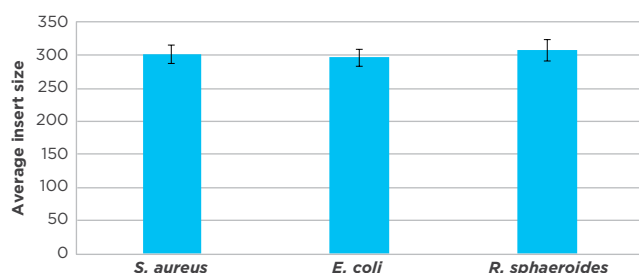


Figure 5: **Reliable enzymatic DNA fragmentation regardless of GC content.** Libraries were generated with 100 ng of a three bacterial genome mix with varying GC content (*S. aureus* (32% GC); *E. coli* (50% GC) and *R. sphaerooides* (68% GC)) using the Revelo DNA-Seq Enz for MagicPrep NGS kit. All genomes were represented as expected in the sequencing data. Insert size analysis shows similar insert sizes for all three genomes indicating that DNA fragmentation was not biased by the GC content.

The Revelo DNA-Seq Enz for MagicPrep NGS kit provides all the reagents and consumables necessary for enzymatic fragmentation of high-quality DNA followed by DNA-Seq library construction. This kit and the MagicPrep NGS system provide a simple solution for the automated preparation of DNA-Seq libraries.

- Broad input range from 50-500 ng
- Pre-optimized, consistent DNA fragmentation regardless of input

## REVELO DNA-SEQ MECH FOR MAGICPREP NGS

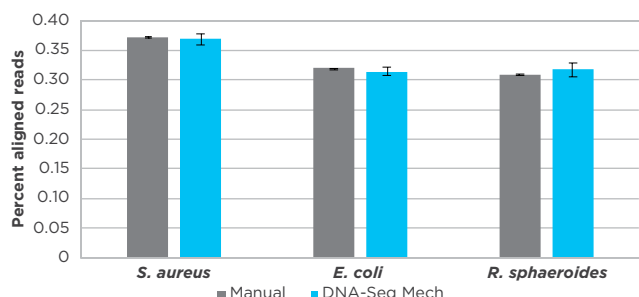


Figure 6: **Consistent results across a broad range of GC content.** The Revelo DNA-Seq Mech for MagicPrep NGS kit was used to generate libraries from 100 ng of a pre-fragmented mix of three bacterial genomes with varying GC content (*S. aureus* (32% GC); *E. coli* (50% GC) and *R. sphaerooides* (68% GC)). Sequencing results showed 99.9% uniformity and genome coverage for all three bacterial genomes. The fraction of reads from each genome is similar to results using a manual workflow demonstrating a low GC bias during automated library construction.

The Revelo DNA-Seq Mech for MagicPrep NGS kit provides all the reagents and consumables necessary for DNA-Seq library construction from pre-fragmented DNA. This kit and the MagicPrep NGS system provide a simple solution for the automated preparation of DNA-Seq libraries.

- Broad input range from 50-500 ng
- Highly sensitive solution for pre-fragmented genomic DNA



Learn more at  
**tecan.com/magicprep-ngs**



Buy online at  
**shop.tecan.com**

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