

Freedom EVO[®] NGS workstation

NGS library preparation & PCR setup at the touch of a button

Next generation sequencing (NGS) technology is advancing at an unprecedented speed and a growing range of new applications are being developed. In conjunction with the ever increasing throughput of NGS instruments and the option to multiplex more and more samples, sample preparation has become a bottleneck. Automation of NGS sample preparation will help to reduce the workload, process more samples in parallel and increase the reproducibility of library preparations, while minimizing sample processing errors.

Qualified protocols

Tecan is developing and optimizing automated NGS sample preparation protocols in collaboration with key research centers and partners including Illumina® and IonTorrent™ for the Freedom EVO NGS workstation to ensure that the protocols work in a customer's lab.

The Freedom EVO NGS workstation



- 1 8-channel pipetting arm, (AirLiHa)
- 2 Robotic Manipulator Arm (RoMa)
- 3 Freedom EVOware® and TouchTools Suite™ software
- 4 Temperature controlled shaker
- 5 3 temperature controlled devices

Additional items include:

- Carrier for troughs, tip boxes, and PCR plates
- 96S Super Magnet
- Dust cover

The Freedom EVO NGS workstation, is based on the compact Freedom EVO 100 platform, equipped with the innovative air displacement pipetting technology. 8 pipetting channels allow highly precise pipetting from 1000ul down to 0.5 µl. Variable tip spacing from 9 to 38 mm ensures efficient sample and reagent transfer from tubes to plates. The standard worktable layout also includes 3 temperature controlled units for reagent cooling and incubation of enzymatic reactions, as well as a shaker for efficient mixing of beads ensuring uniform yields. In addition a simple touchscreen user interface makes protocol selection, instrument set up and run fast and efficient.

How long does it take to train a user to use the instrument?

With the TouchTools™ graphic user interface, log in, selection of a protocol, worktable set up and starting a run requires minimal training and the user is guided through each step of the workflow.



What NGS sample preparation protocols are available?

Protocols included on the standard configuration include Illumina Nextera® Rapid Capture kits, TruSeq® Nano DNA, as well as TruSeq® Stranded mRNA. For an up to date list of current protocols and application notes please visit www.tecan.com/ngs



How is a protocol started?

The TouchTools application starter screen lets the operator select the desired protocol with the touch of a button.

Following protocol selection specific run information including sample number (1-96), final elution volume and other user defined parameters are entered..



Step by step user instructions help avoid potential errors during worktable setup to ensure correct initial conditions. Then a selection confirmation screen provides a run summary as a final check before the start of the run.



How does Tecan help customers to get started?

The Freedom EVO NGS workstation includes all currently available standard protocols at the time of installation. The installation process will include testing and training of up to 3 of the available protocols as agreed with the customer.

Custom script writing services are available for additional protocols, please ask your local Tecan sales representative for more information in your region about this service.

Additional options:

Barcode reading of plates and sample tracking

- Integration of a handheld barcode scanner



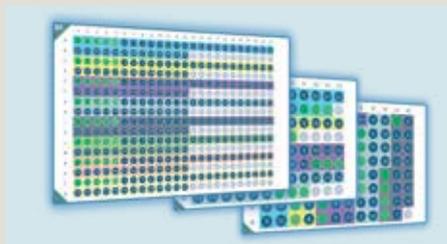
Fully automated quantification and normalization

- Integration of Infinite F200 reader & Normalization Wizard



TouchTools™ PCR Wizard

- Effortless PCR set-up for your everyday needs



Consumables:

- 30057813 Disposable Tips, 50 µl, Conductive, Filtered, Tecan Pure Purity Level, 24 x 96 pcs, for refill in disposable tips SBS box
- 30057815 Disposable Tips, 200 µl, Conductive, Filtered, Tecan Pure Purity Level, 24 x 96 pcs, for refill in disposable tips SBS box
- 30058506 Disposable Tips refill box, SBS format, 10 pcs
- 30055743 Disposable Troughs, 25 mL, PP, grey, Tecan Pure Purity Level, 120 pcs
- 10613049 Disposable Troughs, 100 mL, PP, grey, Tecan Standard Purity Level, 108 pcs

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