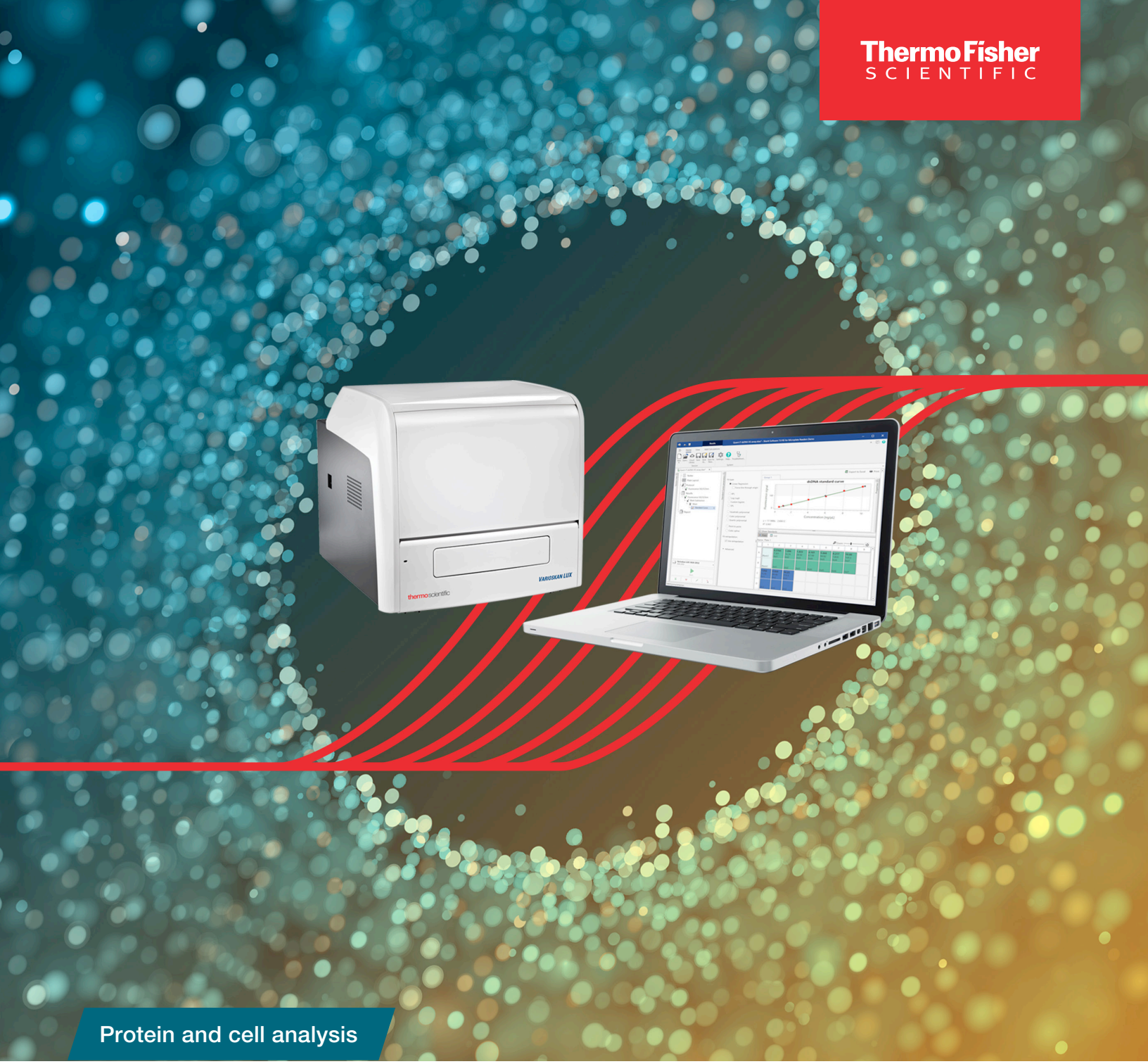
ThermoFisher SCIENTIFIC



Protein and cell analysis

SkanIt Software for microplate readers

Simplified data acquisition and analysis

thermo scientific

SkanIt Software highlights

- Open-license software for unlimited installation on multiple computers
- Two editions available—Research Edition for life sciences, and Drug Discovery Edition with features for compliance with 21 CFR Part 11
- User interface languages available—English, French, German, Spanish, Portuguese, Italian, Russian, Japanese, and Chinese
- Robotic automation interface
- Searchable Thermo Scientific™ SkanIt™ Cloud Library with ready-to-use protocols that include calculations
- Measurement sessions are easy to set up and navigate
- The Thermo Scientific™ Virtual Pipetting Tool assists in defining the plate layout
- Single- or multiple-wavelength measurements, as well as multi-technology measurements
- Capable of endpoint, kinetic, spectral scanning, bottom-reading with multipoint option, and kinetic-spectral measurements
- Built-in calculations for fast, accurate data analysis, including:
  - Parallel line analysis
  - Enzyme kinetic analysis of K_m and V_{max}
  - Z-factor analysis
  - Linear and logistic regression analysis by curve fitting
- Data transferable to a Microsoft™ Excel™ file with a single click
- Can export data manually or automatically to .xlsx, .pdf, .xml, and .txt file formats
- Can automatically load measurement data into a customized Excel template file

Thermo Scientific™ SkanIt™ Software helps to simplify both data acquisition and analysis, facilitating an effortless workflow so that you can push your research forward with confidence.

Excellent usability and flexibility

SkanIt Software helps you optimize your research with an easy-to-read visual workflow, effortless data analysis, and flexible exporting capabilities. With SkanIt Software, you have full control over the instrument settings for all your Thermo Scientific™ microplate readers.

Two different editions for extra convenience

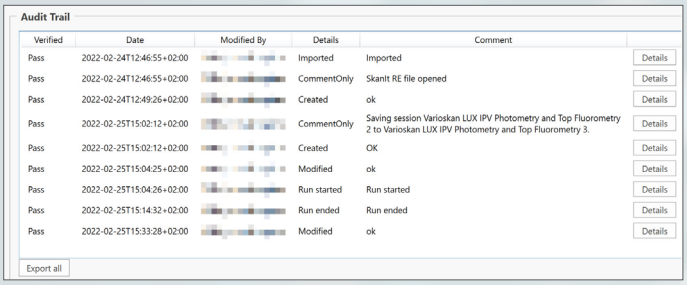
SkanIt Software is available in two editions: Research Edition or Drug Discovery Edition.

SkanIt Software Research Edition has a file-based management system that makes it easy to store data securely to local drives, network drives, or even to cloud-based file-sharing services. To make the usage as convenient as possible, it does not have any user account, passwords, or other restrictions.

SkanIt Software Drug Discovery Edition offers features for compliance with FDA 21 CFR Part 11. It uses an integrated database system for data storage for maximal security and traceability. Drug Discovery Edition is also integrated with Microsoft™ Windows™ Active Directory, so it uses Microsoft™ Windows™ system accounts and passwords to access the software. Inside SkanIt Software Drug Discovery Edition, Windows system users can be divided into separate user groups with different privileges and options. Thorough Audit Trails for both experimental data and system usage offer full traceability of all changes (Figure 1), and digital signatures bring additional safety to sensitive laboratory work.

Both editions can be installed on the same computer simultaneously, and experimental protocols can be freely shared between the editions.

Session Audit Trail



System Audit Trail

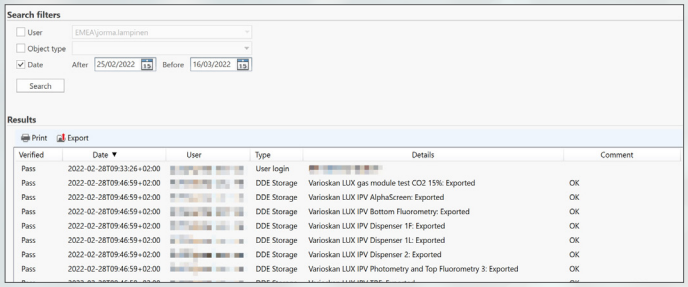


Figure 1. SkanIt Software Drug Discovery Edition has two audit trails to trace all changes and modifications—Session Audit Trail (left) has information related to individual experiments, and System Audit Trail (right) contains information about software usage.

Easy to learn

SkanIt Software is designed to conveniently serve multiuser environments. Operation is simple and straightforward, whether you need only basic plate-reading capabilities or more complex protocols and powerful analysis. At the same time, it offers flexible and versatile features for advanced applications. SkanIt Software is an open-license platform that authorizes unlimited installation privileges. You can create measurements and analyze results on your computer inside or outside of the lab, and you can easily transfer sessions between different computers.

Intuitive interface

The user-friendly session structure simplifies setup (Figure 2):

- **Notes**—write notes about the assay
- **Plate layout**—define the sample content for each well
- **Protocol**—instruct what actions to perform
- **Results**—see the results and perform calculations
- **Report**—create a report and export data
- **Custom template**—load results directly into your own Excel template file

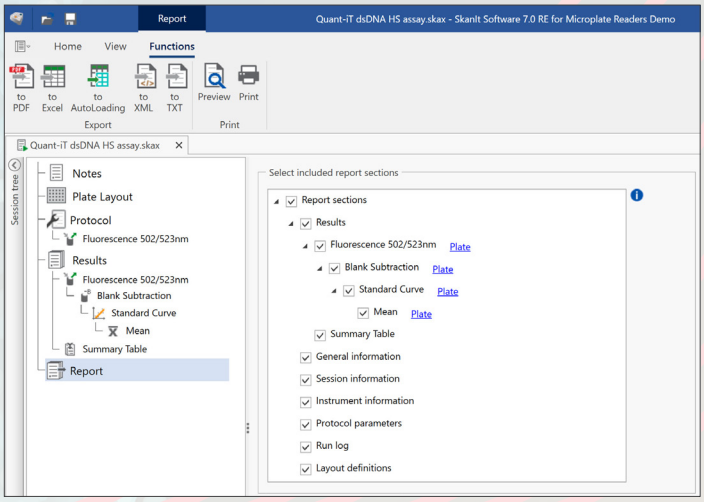


Figure 2. The session tree is the main area to navigate in the software.

Session management

SkanIt Software Research Edition saves data into program-specific files with the file extension .skax, which is automatically recognized by the Windows operating system (Figure 3). This makes opening of data files very fast and easy. Just double-click a .skax file in any folder to immediately launch SkanIt Software and open the data, just like a Microsoft™ Office 365™ file.

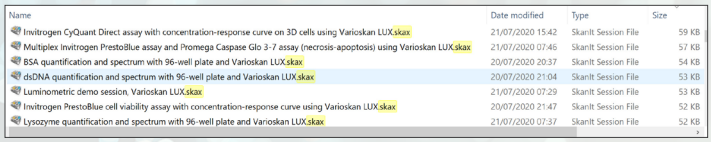


Figure 3. SkanIt session files are recognized by the Windows operating system and displayed in a folder.

Intuitive visual tool for defining plate layout

The Virtual Pipetting Tool lets you quickly enter sample information in a manner that resembles reagent pipetting, making it easy to define the plate layout (Figure 4).

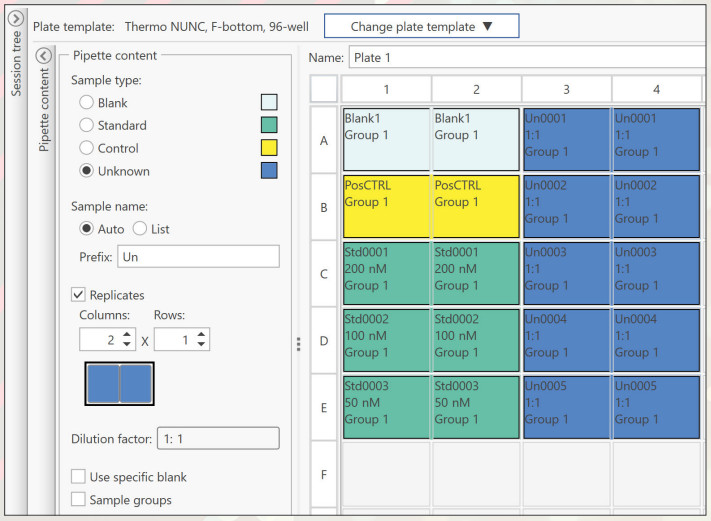


Figure 4. The innovative Virtual Pipetting Tool makes it easy to define samples in your plate layout.

Measurement protocol

The measurement protocol setup is easy. Simply add the instrument actions to the session tree in the order they will be performed (Figure 5).

The software offers flexible features for assays of different complexities:

- Endpoint, kinetic, spectral scanning, bottom-reading with multipoint option, and kinetic-spectral measurements
- Single- or multiple-wavelength measurements
- Multi-technology measurements, including kinetic
- Pathlength correction for normalizing absorbance data when measuring concentrations
- Executing instrument actions separately for different groups of wells
- Specialized microliter-scale measurements with the Thermo Scientific™ µDrop™ and µDrop™ Duo Plates
- Searchable SkanIt Cloud Library with ready-to-use protocols
- FluoroSpot feature allows prescreening for initial evaluation of FluoroSpot plates

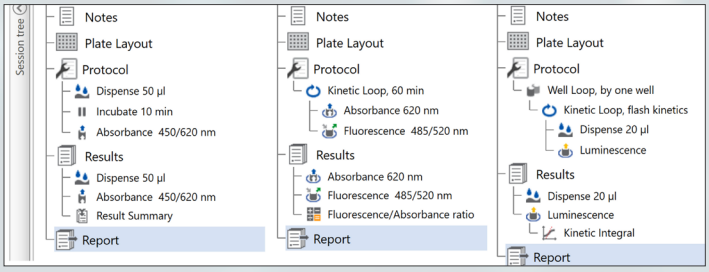


Figure 5. The measurement protocol is defined by a user-friendly step-based list.

Results display

Measurement data are continuously saved during the run, to help ensure that data are not lost due to unexpected interruptions such as power outages. The software has a clear display where data are shown in convenient result numbers, kinetic curves, spectral graphs, and 3D graphs (Figure 6).

The software brings additional integrity to your research by saving important information for traceability. Temperatures, time stamps of actions, errors, and warnings are just a few of the prompts you will receive. With the optional integrated gas module, the log will also report the CO_2 and O_2 concentrations.

Easily analyze your data directly in SkanIt Software

Select from a variety of data processing tools:

- Average, SD, and %CV from sample replicates
- Curve fitting for typical biological responses, including parallel line analysis, enzyme kinetics (K_m and V_{max}), Z-factor, and many more
- Curve fitting including back-calculation of samples and standards for QC or assay verification
- Basic calculations such as ratio, subtraction, division, and multiplication
- Quality control for checking the validity of assays
- Classification for dividing samples into categories
- Normalization of data to your selected reference sample (e.g., for calculation of cell viability percentages)
- Calculations for reduction of kinetic or spectral data
- Merging multiple measurements into a single kinetic data set for better data analysis
- Advanced calculation tool for creating custom formulas

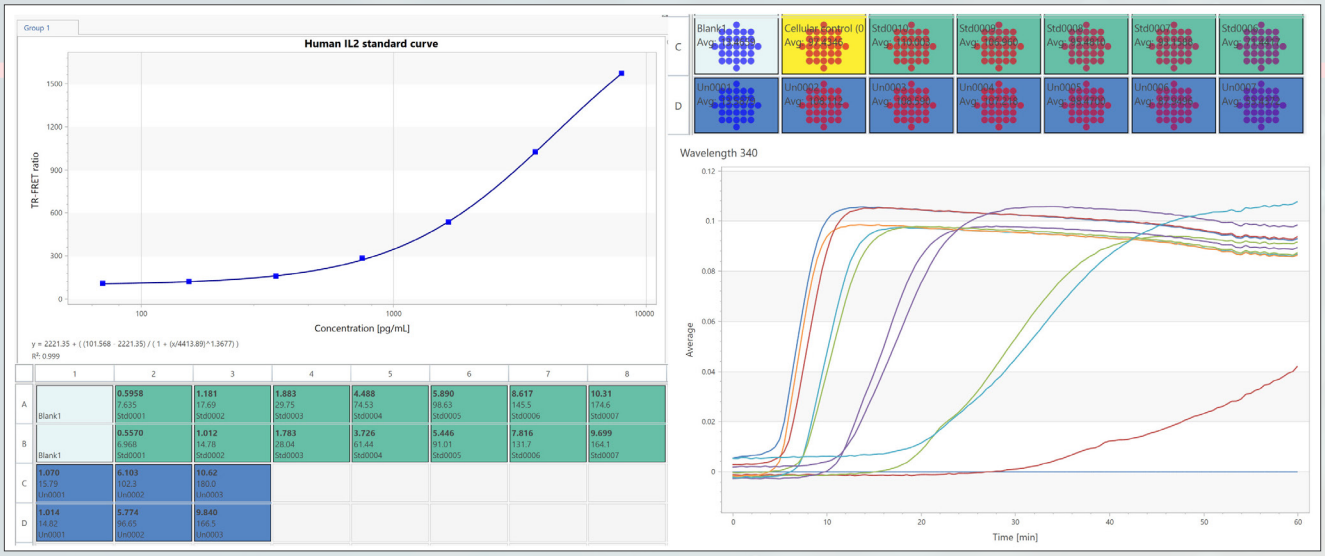


Figure 6. Results displayed in different data formats.

The session tree in SkanIt Software makes it easy to navigate between raw data and calculated results by showing the dependency of each calculation step (Figure 7).

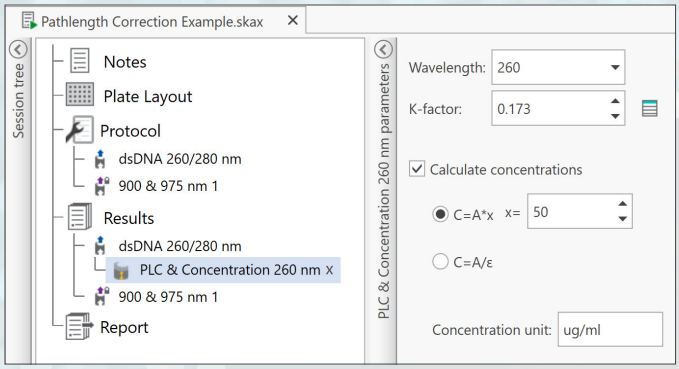


Figure 7. The visual tree showing sequential calculations.

SkanIt Software uses a function for pathlength correction to quantify nucleic acids and proteins with photometric measurements. It normalizes absorbance values measured on a microplate to correspond to values with a standard 1 cm cuvette, thus enabling calculation of nucleic acid and protein concentrations directly from absorbance values (Figure 8).

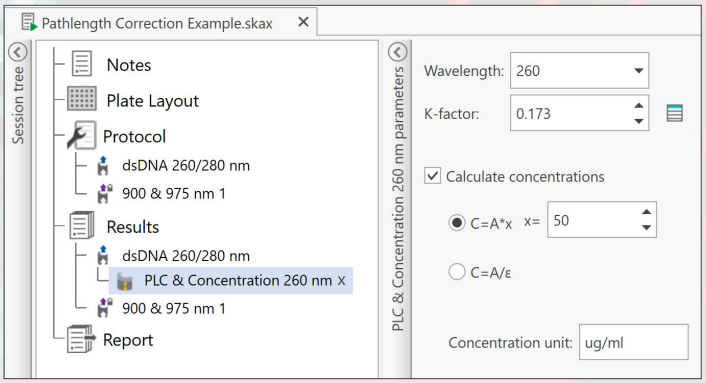


Figure 8. Pathlength correction is a simple yet reliable tool for photometric DNA and RNA analysis.

The “Add Calculations” ribbon enables you to quickly process data and answer your research questions. SkanIt Software recognizes the type of data you have collected and only displays relevant calculation options, which is why some buttons are gray in Figure 9.

Figure 9. The built-in calculation functions of SkanIt Software help you process the measurements.

SkanIt Cloud Library

The SkanIt Cloud Library is a collection of validated sessions that anyone can use as examples, training materials, or templates to create assay protocols. The SkanIt Cloud Library sessions all have complete calculation protocols, and true data from the real assay with the real samples and reagents. With the easy-to-use search feature, you can enter any keyword to find the protocol you need.

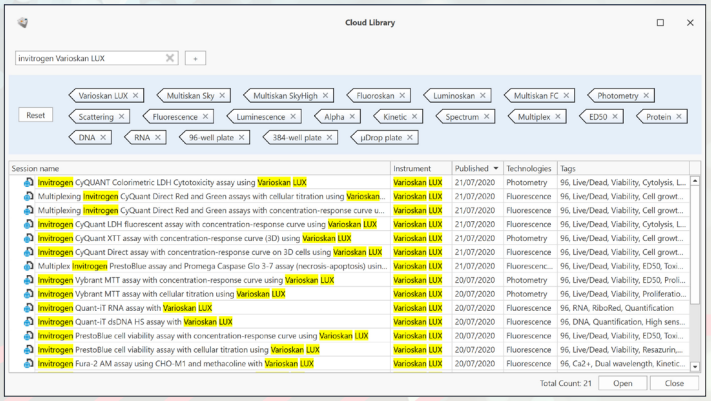


Figure 10. The SkanIt Cloud Library is a useful source of ready-made assay protocols.

Exporting results

Exporting data from SkanIt Software couldn't be easier:

- Multiple file formats: .xlsx, .pdf, .xml, or .txt
- Quick export to an Excel file with a single click (Figure 11)
- Automatic loading of measurement data into a predefined Excel template file
- Both measured and calculated data are reported together
- Full traceability of data in the reports
- Automatic reporting after execution

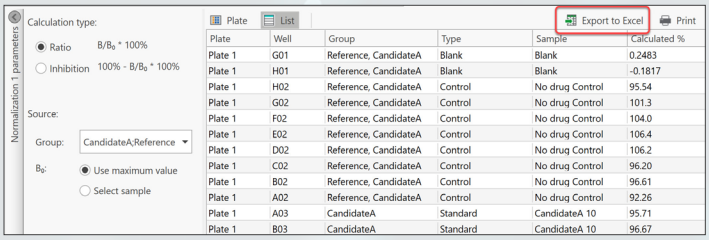


Figure 11. Export data to an Excel file with a single click.

You can create a comprehensive report of both measured and calculated data. You can also select the way the data are organized and sorted—export the results report in .xlsx, .pdf, .xml, or .txt file format. Additionally, using the AutoLoading feature, you can load measurement data automatically into a predefined Excel file for further calculations (Figure 12).

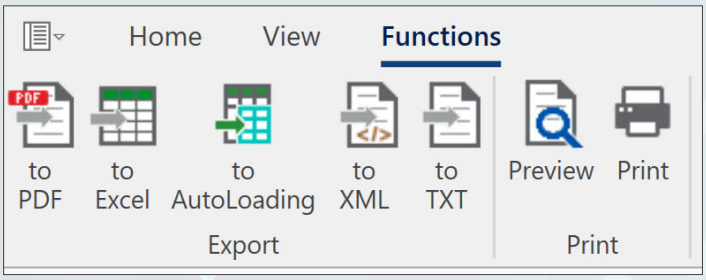


Figure 12. Reporting in multiple formats is quick and easy.

After the run, you can export the results manually or automatically to a specific destination (Figure 13). You can export them as individual files with unique file names, append files where data from multiple measurements can be collected into one exported file, or export to an existing Excel file using the AutoLoading feature.

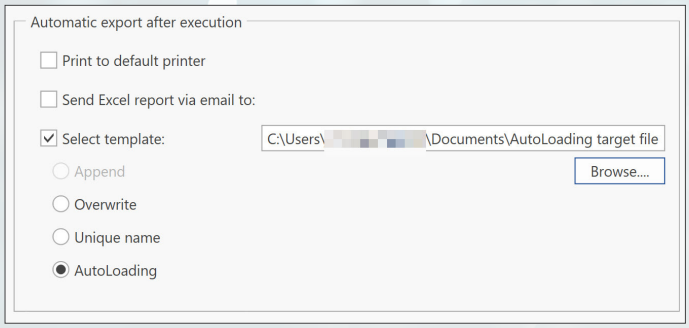
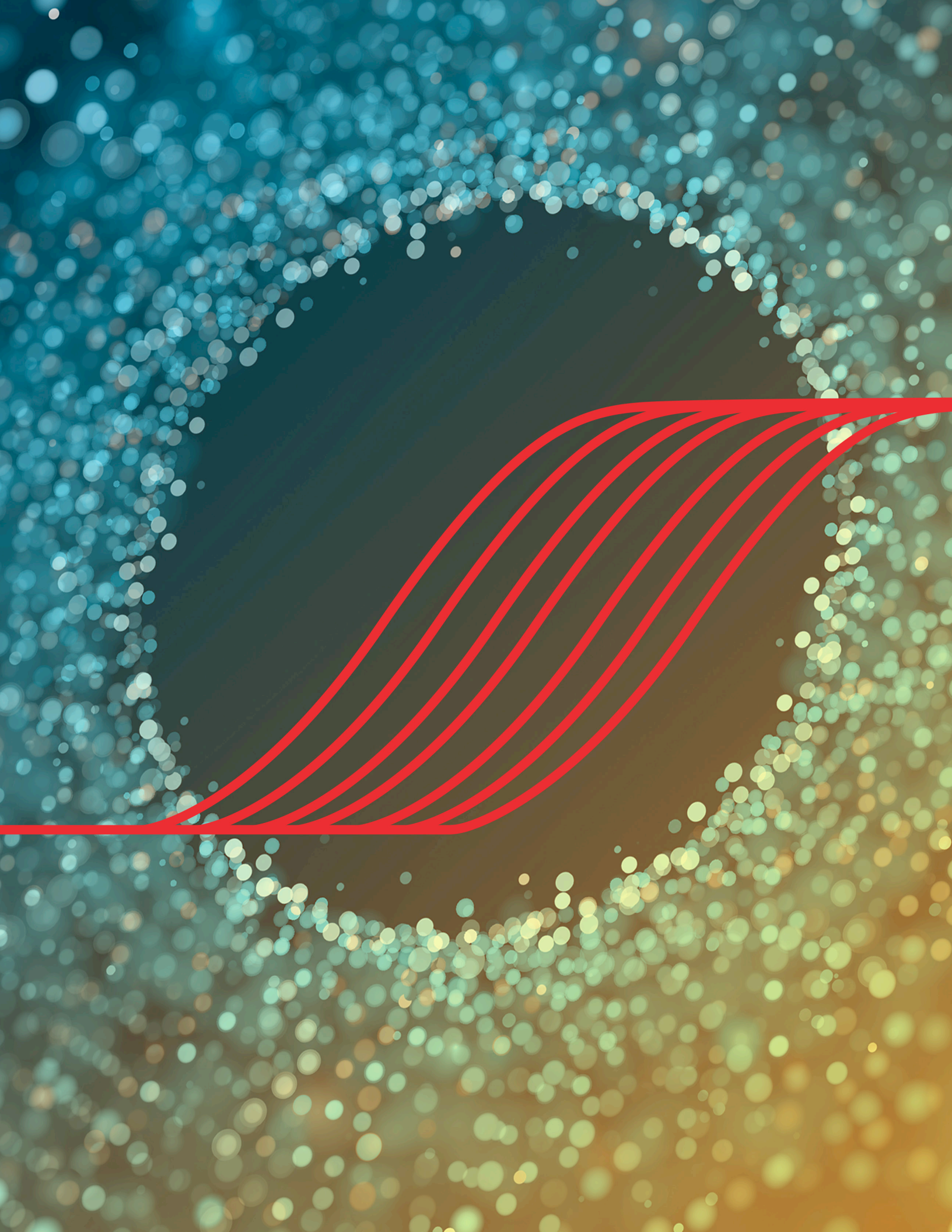


Figure 13. Data export can be set to be fully automatic after an assay has been executed.



Ordering information

Description	Cat. No.
SkanIt Software packages for Varioskan and Multiskan microplate readers	
SkanIt Software, Drug Discovery Edition	5187149
Upgrade packages for older Fluoroskan Ascent, Fluoroskan Ascent FL, and Luminoskan Ascent microplate readers to replace old Ascent Software	
SkanIt Software Upgrade Package, Research Edition	N17646
SkanIt Software Upgrade Package, Drug Discovery Edition	N18600

Note: The Research Edition is included free of charge with every Thermo Scientific microplate reader. The Drug Discovery Edition must be purchased separately.

PC requirements

System	PC requirements
Supported operating systems	64-bit edition of Microsoft Windows 11, Pro or Enterprise edition 64-bit edition of Microsoft Windows 10, Pro or Enterprise edition
Hard drive	14 GB free disk space
Processor	Quad core (or dual core with four logical processors), 2 GHz or faster
Memory	8 GB RAM (minimum)
USB ports available	1
Monitor	Full HD with 1,920 x 1,080 resolution

Note: If you process sessions with more than a total of 150,000 individual measurements or with complex calculations, we strongly recommend using a computer that exceeds these requirements (especially for the RAM memory).

Find out more at **thermofisher.com/skanit** and **thermofisher.com/platereaders**