Thermo Scientific Multiskan Sky Microplate Spectrophotometer

Take your photometric research to new heights

Presenter name

Contents

- Thermo Scientific™ Multiskan™ Sky Microplate Spectrophotometer

- Applications

- Touch-screen display

- Thermo Fisher Connect cloud-based capabilities

- Thermo Scientific™ SkanIt™ Software for flexibility, control, and data handling

- Key benefits

- Ordering information

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- New-generation UV/Vis microplate spectrophotometer

- For virtually any photometric research application, especially DNA, RNA, and protein analysis

- Superior versatility for academic, biotech, and pharmaceutical laboratories

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Three Multiskan Sky Microplate Spectrophotometer Configurations

Multiskan Sky Microplate Spectrophotometer with Cuvette and Touch Screen*

- Offers flexibility to use the instrument as a stand-alone or with SkanIt PC software
- Offers additional cuvette-reading functionality

Multiskan Sky Microplate Spectrophotometer with Touch Screen*

- Offers flexibility to use the instrument as a stand-alone or with SkanIt PC software

Multiskan Sky Microplate Spectrophotometer, operated only with the SkanIt PC software

- Ideal for users who rely on a PC for all operations

* Allows access to Thermo Fisher Connect cloud-based capabilities. Can be connected to the local area network.

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- Intuitive, easy-to-use, and UI-optimized for touch-screen use

  - Ready-to-use protocols for DNA, RNA, and protein quantification

  - Endpoint, kinetic, or spectral measurements

- Freedom to access data

  - Compatible with Thermo Fisher Connect cloud-based capabilities

  - Wired or wireless network connection

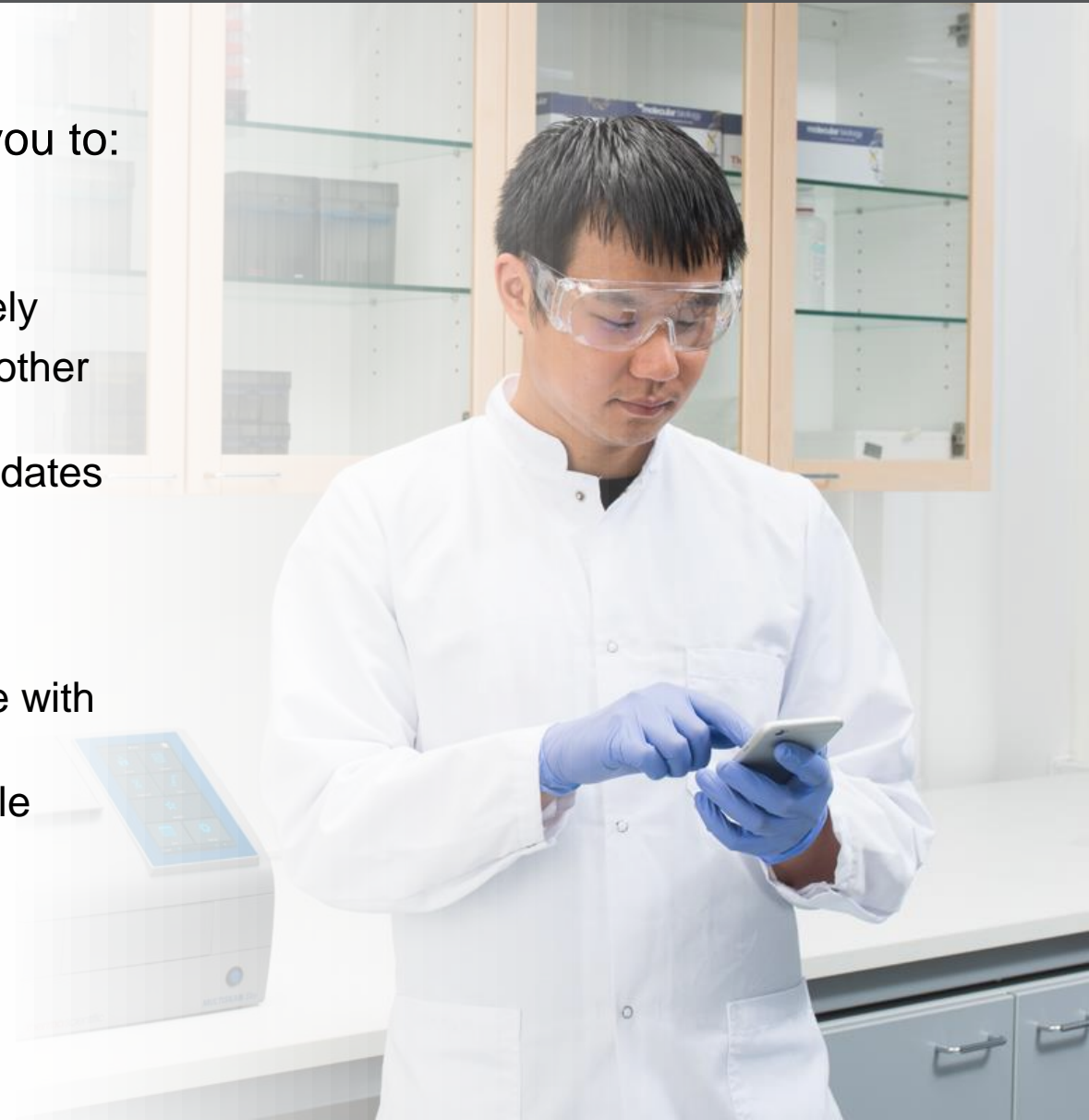 - USB flash drive

- Nine languages available for UI

* For models with touch-screen displays.

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Thermo Fisher Connect Cloud-Based Capabilities*

Thermo Fisher Connect cloud-based capabilities enable you to:

- Upload measured data automatically or manually from your instrument to your cloud account
- Securely store, access, share, and manage your data remotely
- Share data with research team members or colleagues in another lab, location, or country
- Receive automatic notification of new instrument software updates
- Upgrade instrument software at your convenience
- Monitor the status of your instrument from your PC or Mac™ computer
- Monitor the status of your instrument from your mobile device with the "Instrument Connect" app
- Manage instrument reservations from your computer or mobile device

Enjoy the freedom to access your data remotely

* For models with touch-screen displays.
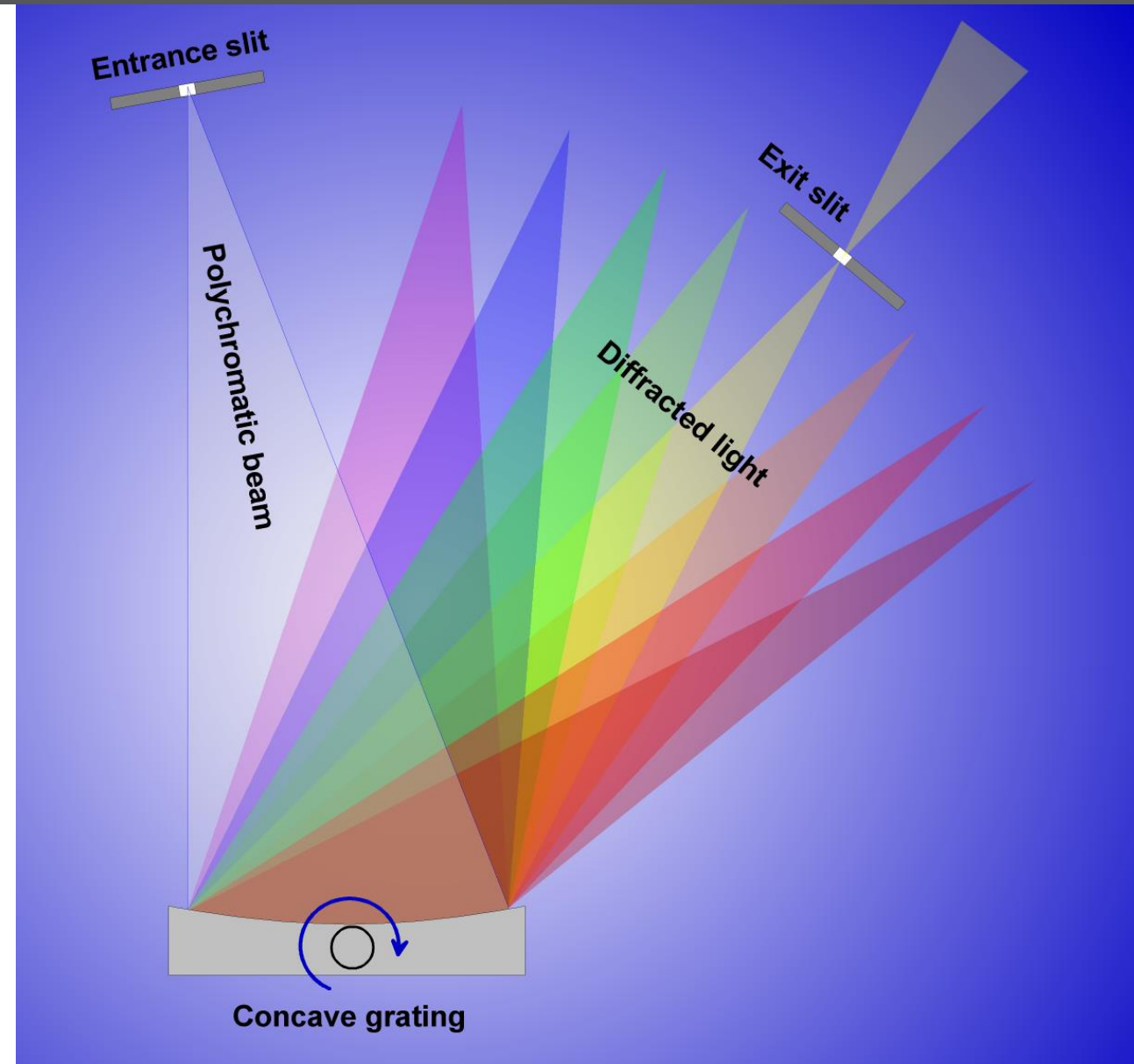
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- SkanIt Software sets up even demanding assays

  - Research Edition comes with all reader models

  - Drug Discovery Edition is sold separately

    - Offers features for FDA 21 CFR Part 11 compliance

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- Enjoy the freedom to switch between assays without limitation

- Free wavelength selection enabled by monochromator technology

- No need to purchase filters — Helps save time and money

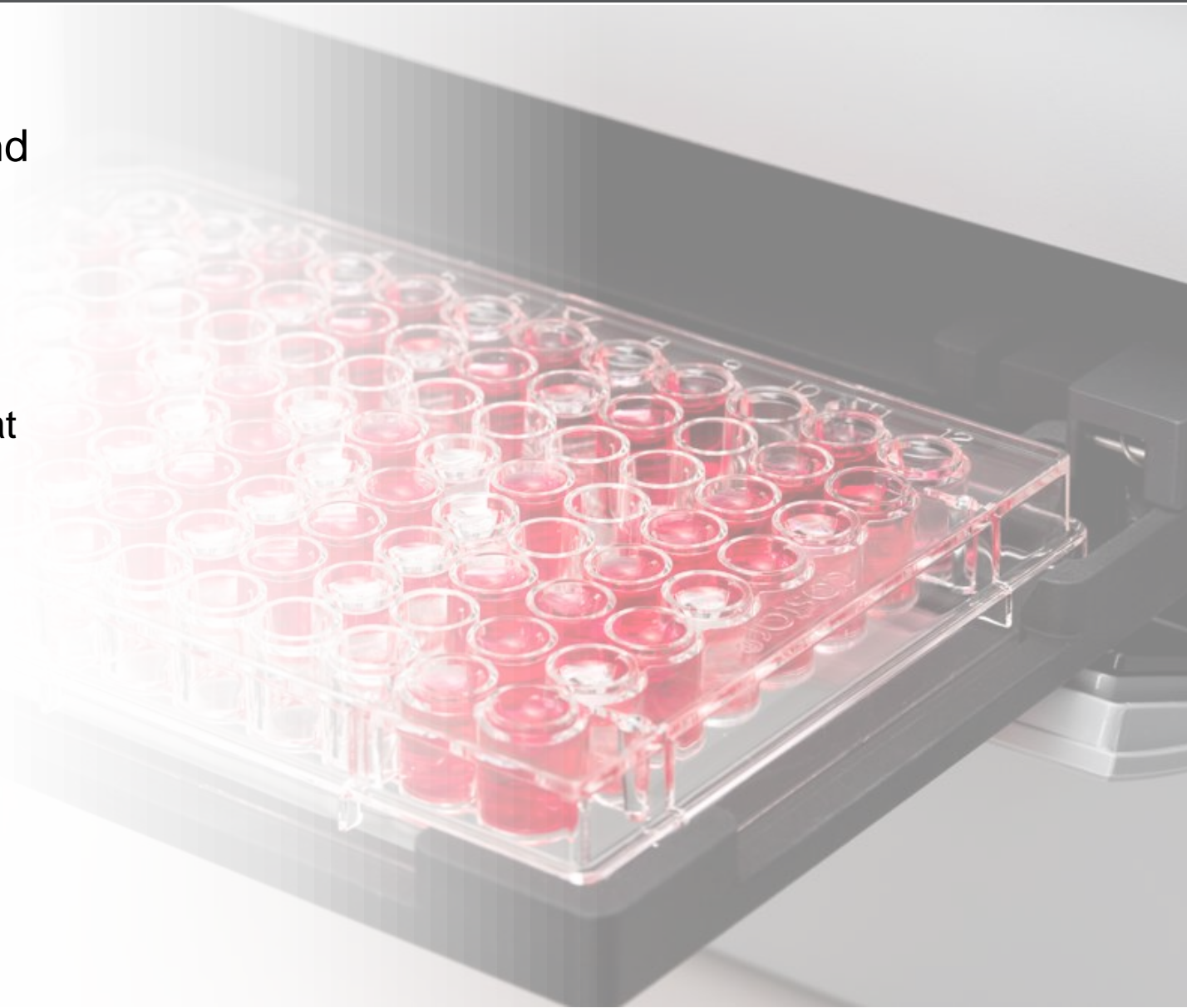- Wide spectral range, 200 –1000 nm in 1 nm steps

Easily adaptable for different assays

Entrance slit

Exit slit

Polychromatic beam

Diffracted light

Concave grating

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High-Quality Data and Consistent Performance

- Dual-beam optical system with an internal reference channel for excellent stability and precision

- Built-in self diagnostics

  - Automatic checking of instrument functions at start-up

  - Continuous runtime control of optical and mechanical functions

  Stable day-to-day and year-to-year

  performance and realiability

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Flexibility in Sample Formats and Throughput

- 96- and 384-well microplates
  - With or without lids

- Versatile cuvette formats
  - Standard, semi-micro, micro, ultra-micro

- Thermo Scientific™ µDrop™ Plate for low-volume measurements
  - Nucleic acid and protein quantification

- Increased throughput with automation

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Nucleic acid quantification

Protein assays
(direct quantification
and colorimetric assays)

Bacterial growth assays

Cytotoxicity and cell viability assays

Cellular proliferation assays

Apoptosis assays

Enzyme activity assays

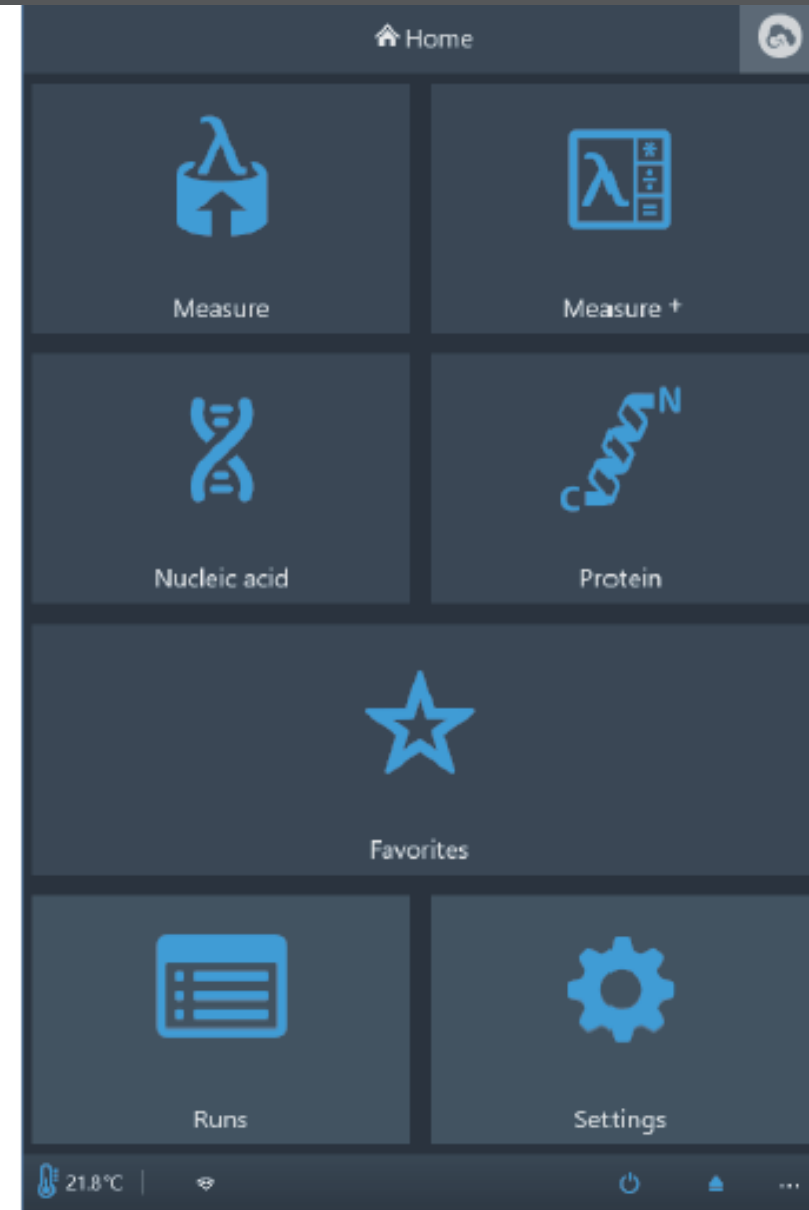Spectral assays

Kinetic assays

Immunoassays (including ELISA)

Colorimetric and turbidimetric endotoxin assays
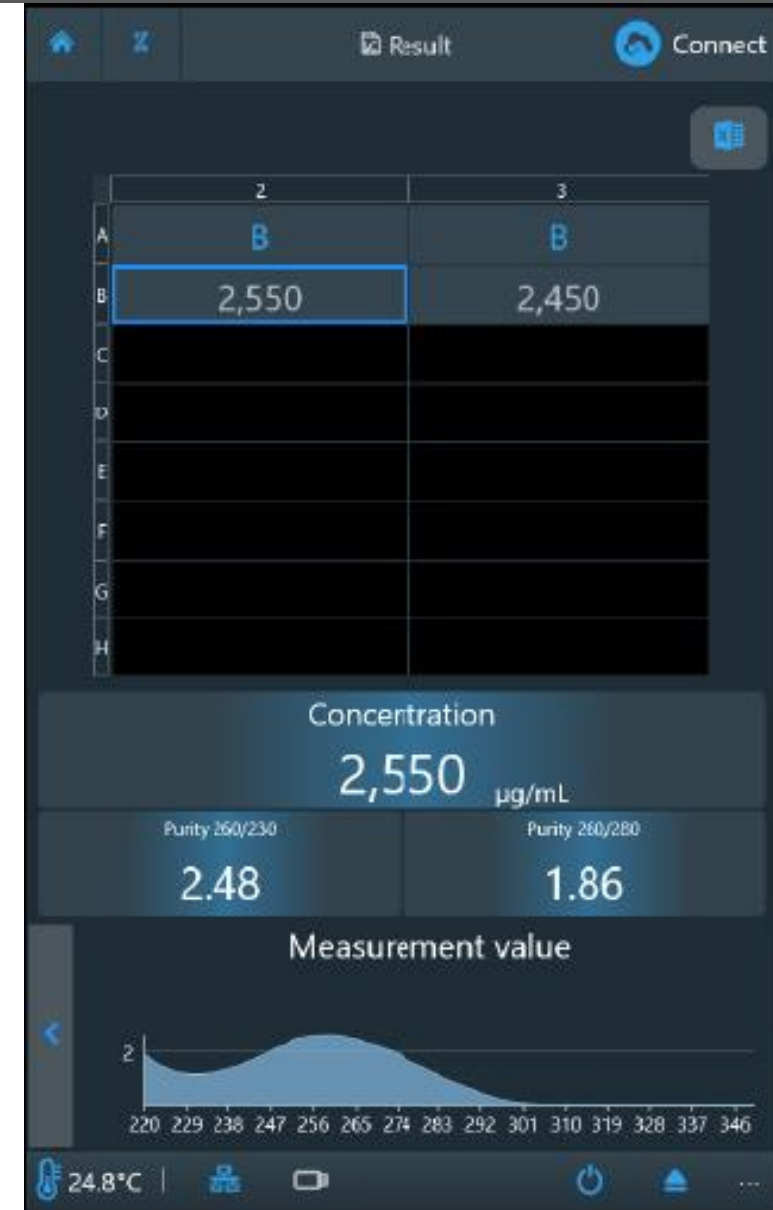

Photometric assays in a variety of formats

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Multiskan Sky Touch-Screen Display

- Measure: endpoint, kinetic, and spectrum

- Measure $^+$: absorbance measurements followed by basic calculations

- Nucleic acid: DNA and RNA quantification

- Protein: protein quantification

- Favorites: saved measurements

- Runs: results of previously run measurements

- Settings: instrument, network and USB, and µDrop Plate settings

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Built-in Protocols for Nucleic Acid Quantification*

- ## Quantify nucleic acids
  - dsDNA, ssDNA, RNA, or custom nucleic acids

- ## Measure using the µDrop Plate, microplate, or cuvette

- ## Visualize results
  - Calculated concentrations and purity values
  - Automatic background correction at 320 nm
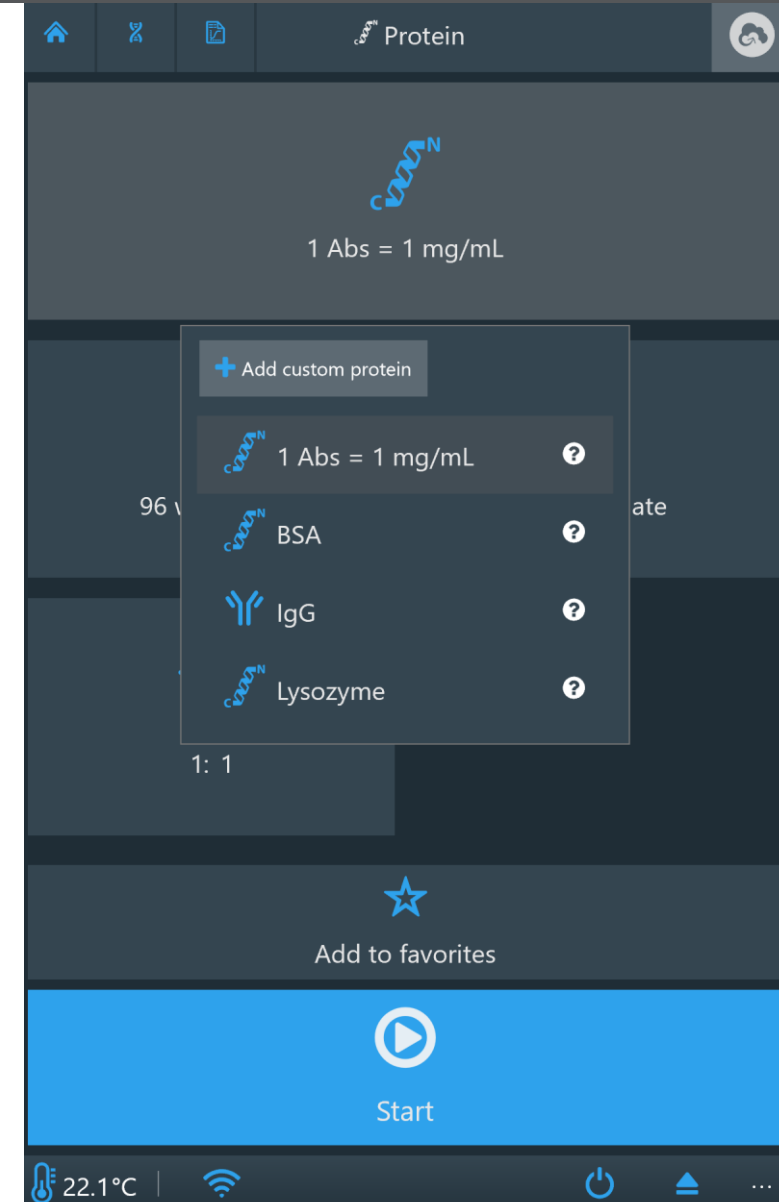 - Spectral views

* For models with touch-screen displays.

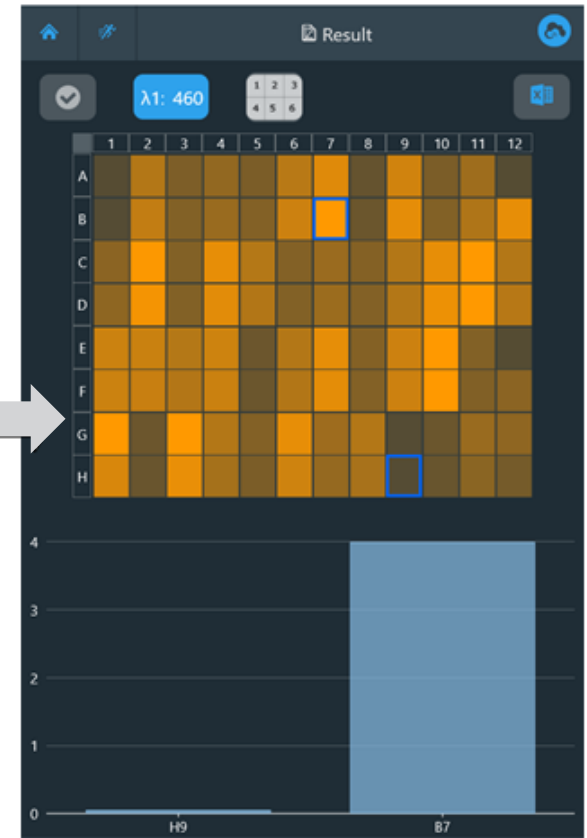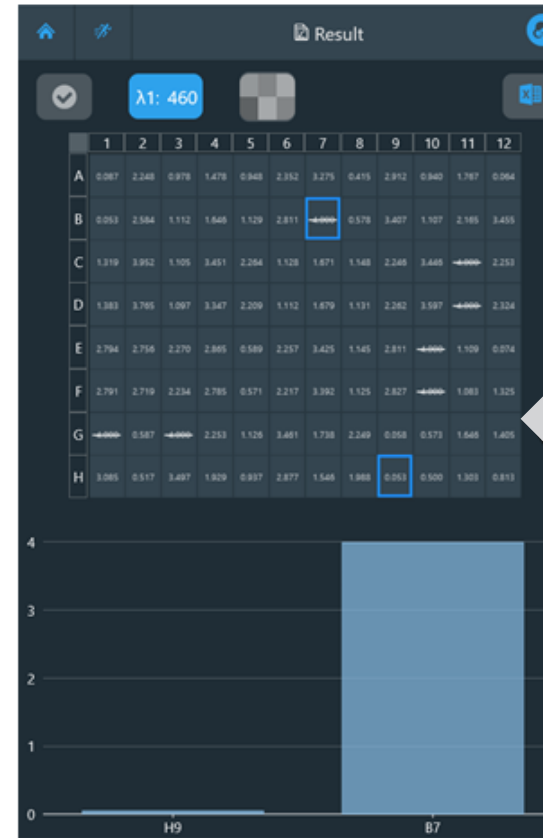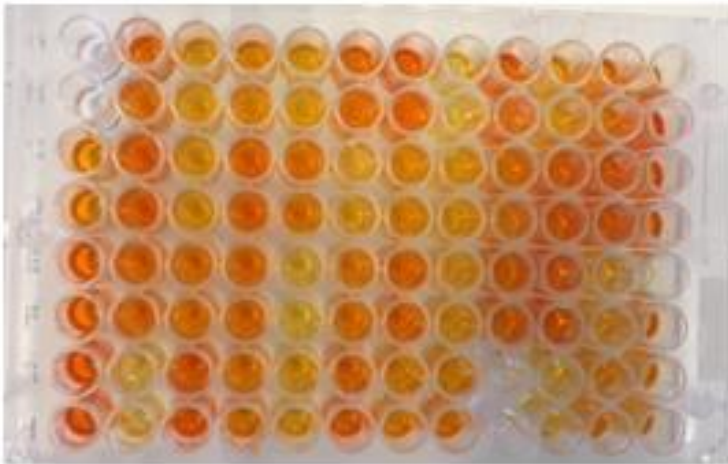# Built-in Protocols for Direct Protein Quantification*

- Applicable to four different protein types or custom protein
  - Abs = 1 mg/mL, BSA, IgG, Lysozyme, custom protein

- Measure using the µDrop Plate, microplate, or cuvette

- Visualize results
  - Calculated concentrations and purity values
  - Automatic background correction at 320 nm
  - Graphical views

* For models with touch-screen displays.
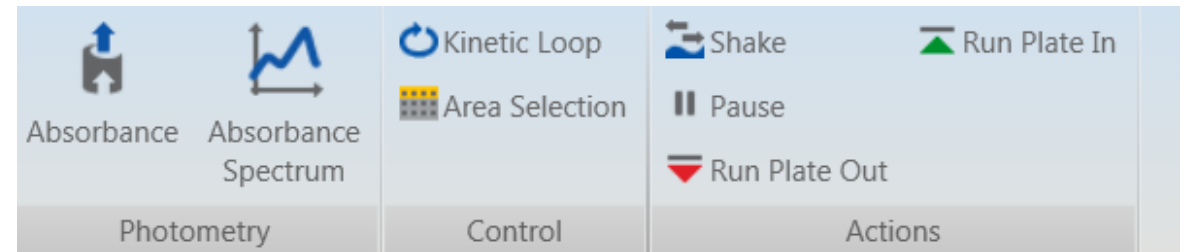
Innovative Heat Maps*

- Visualize the endpoint results in a mirror-like mode that closely resembles the colors of the assay plate

- View numerical or heat-map data

* For models with touch-screen displays.

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SkanIt Software for Flexibility, Control, and Data Handling

- Easy to navigate and set up measurement sessions

- The Thermo Scientific™ Virtual Pipetting Tool™ assists in defining plate layout

- Built-in calculation options for data analysis

- Clear online data display during run

- Data transfer to Microsoft™ Excel worksheets with a single mouse click

- Manual or automatic data export to *.xlsx, *.pdf, *.xml and *.txt data formats

- Open-license software for unlimited installations

- Choose from nine languages: English, French, German, Spanish, Portuguese, Italian, Russian, Chinese, and Japanese

- Separate user accounts for controlling access to software

- Drug Discovery Edition offers features for FDA 21 CFR Part 11 compliance

- Automation interface

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SkanIt Software — Example Protocol Library

- Includes preloaded example sessions for Multiskan Sky

  - Internet connection required

Research Application	Assay type	Assay format
Photometric DNA assay A_{260}		µDrop Plate
Photometric DNA assay A_{260}		96-well half-area plate
Photometric RNA assay A_{260}		µDrop Plate
Photometric RNA assay A_{260}		384-well plate
Photometric Protein assay A_{280}	BSA	µDrop Plate
Photometric Protein assay A_{280}	BSA	96-well plate
Photometric Protein assay A_{280}	IgG	µDrop Plate
Photometric Protein assay A_{280}	IgG	96-well plate
Photometric Protein assay A_{280}	Lysozyme	96-well plate
Photometric Protein assay A_{280}	Lysozyme	96-well plate
Photometric assay	Bradford	96-well plate
Photometric assay	Lowry	96-well plate
Cytotoxicity assay	MTT assay	96-well plate
Cytotoxicity assay	LDH assay	96-well plate
Endotoxin assay, turbidimetric		96-well plate

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Multiskan Sky Microplate Spectrophotometer Features Summary

- Flexible enough to use as a stand-alone* or with SkanIt Software

- Freely selectable measurement wavelengths from 200 to 1000 nm

- Reads 96- and 384-well plates with and without lids, or cuvettes*

- Reads µDrop Plate for micro-volume DNA, RNA, and protein analysis

- Automation-compatible

- Onboard shaker (plate)

- Incubation up to +45ºC (plate and cuvette)

- Fast reading speed

    - Reads a 96-well plate in ~6 seconds (A1 to A1)

    - Completes a full spectrum of a sample in ~10 seconds

- Can be operated in multiple languages

* Availability depends on the instrument model.

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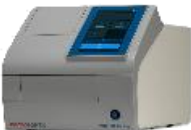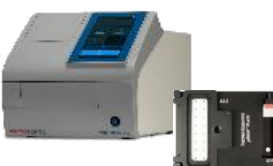- Visualize your results promptly and with unparalleled clarity*

- Freedom to access your data at any time*

- Quick and easy DNA, RNA, and protein quantification*

- Logical and truly user-friendly SkanIt PC Software serves users of different skills and needs

Try it—the instrument speaks for itself

* Availability depends on the instrument model.

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Ordering Information

Cat. No.	Model	SkanIt Software RE	Touch screen*	Cuvette holder	µDrop Plate	
51119500	Multiskan Sky	✓				
51119600	Multiskan Sky with touch screen	✓	✓			
51119700	Multiskan Sky with cuvette and touch screen	✓	✓	✓		
51119600DP	Multiskan Sky with touch screen + µDrop Plate	✓	✓		✓	
51119700DP	Multiskan Sky with cuvette and touch screen + µDrop Plate	✓	✓	✓	✓	

* Allows access to Thermo Fisher Connect cloud-based capabilities. Can be connected to the local area network.

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Go to thermofisher.com/multiskansky

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We are on the same wavelength

The whole Thermo Scientific™ microplate reader family is compatible with SkanIt Software

Multiskan™ FC Microplate Photometer

Multiskan™ Sky Microplate Spectrophotometer

Fluoroskan™ Microplate Fluorometer

Luminoskan™ Microplate Luminometer

Fluoroskan™ FL Microplate Fluorometer and Luminometer

Varioskan™ LUX Multimode Reader

For further information, go to thermofisher.com/platereaders

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