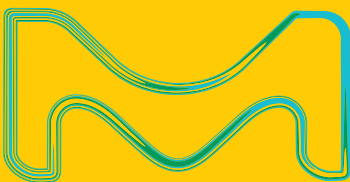


TLC Explorer Documentation System

Simplify TLC Analysis with Smart Technology



The Life Science business of Merck operates as MilliporeSigma in the U.S. and Canada.

Supelco®
Analytical Products

TLC Explorer Documentation System

Our new TLC Explorer Documentation System offers a superior instrumental solution for reliable TLC plate analysis and digitalized documentation system.



Shutter slider controls the opening to reveal different parts of the baseplate to reduce stray light

Inspection Window for quick and safe visual check of chromatogram

PATENTED DESIGN

User-friendly design for easy operation in typical laboratory settings

Plug-and-play operation with easy installation, built-in camera, PC unit, WiFi antenna, and USB-C power connection

Three illumination settings for simple operation while wearing nitrile gloves: VIS (visible light), 366 nm, and 254 nm

Power on/off button

LED light sources are more sustainable and mercury-free

Safety drawer

- Guards against UV exposure
- Accommodates single or multiple TLC plates
- Removable baseplate facilitates loading and cleaning

Remote Use

Possible with power bank (ordered separately)



Portable/Ergonomic

- User-friendly design
- Lightweight (10kg)
- Compact
- Rounded edges



Open Drawer Unit

Baseplate is placed on Drawer Unit. An alignment pin underneath the plate area helps the user to orient and align the baseplate correctly on the drawer.



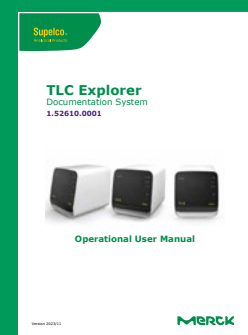
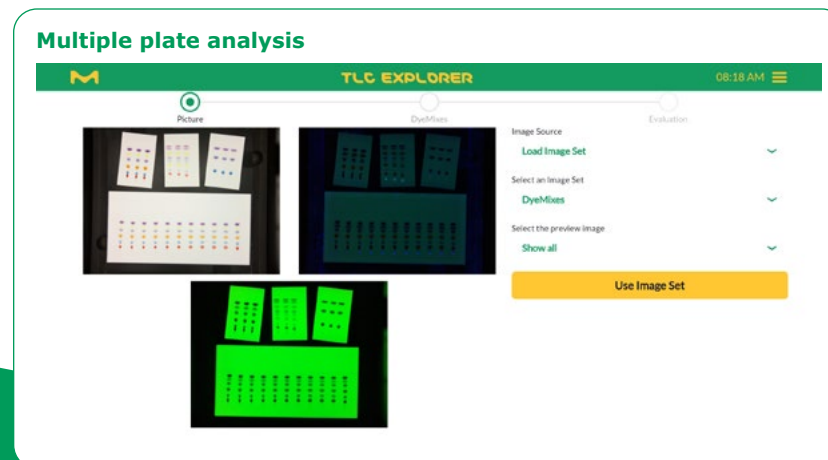
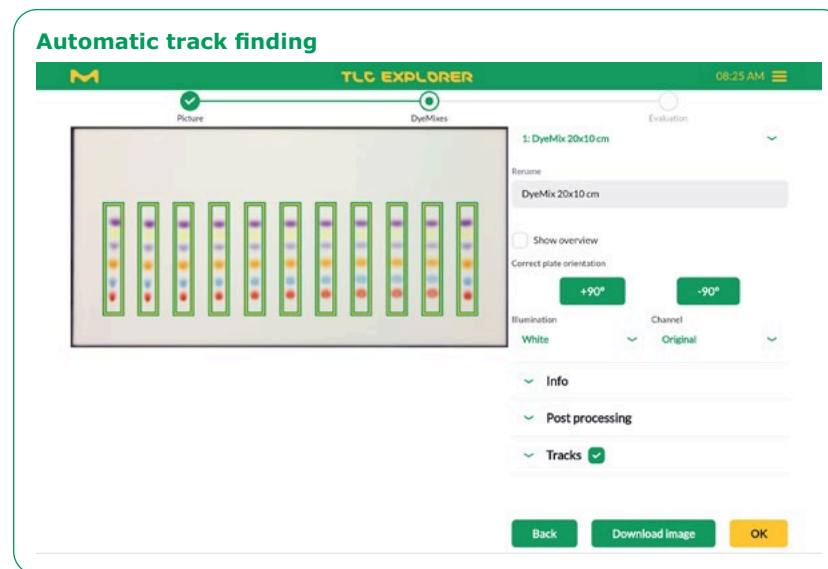
Baseplate

For convenient insertion of multiple plates

Digital TLC: accurate, reproducible, efficient

Ready to transform your TLC process with cutting-edge digital precision? Say good-bye to inconsistent TLC results and manual, time-consuming analysis. Say hello to streamlined, reliable chromatography workflows with the TLC Explorer. Trust in the precision of digital imaging and automated spot detection for quantitative analysis and consistent data interpretation.

- Fast measurement of tracks under 3 light settings: 254 nm, 365 nm, and visible
- Simultaneous analysis of multiple plates up to 20 x 20 cm
- Automated track recognition and retention factor (Rf) calculation
- Automated crop and rotation function
- Automatic correction of background signals and inhomogeneous illumination
- Special imaging algorithm enabling picture quality comparable to high-end devices
- Quantification tool included
- Easy data export via USB



Find more information in the Instruction Manual.

Digitalize your TLC analysis in 3 easy steps



Capture images

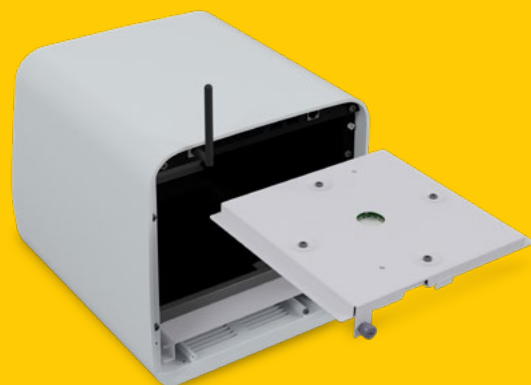
Automatically or manually set exposure conditions for selected illumination types. Plate images can also be edited to reduce image noise or enhance contrast.

Plot and edit densitogram calculation and display

Evaluation process is based on video densitometric measurement performed on electronic images.

Quantitative analysis

To estimate the concentration of a substance, the spot it builds on a track is compared with the corresponding spots of one or more reference tracks.



Easy Maintenance and Lamp Change

The exterior of the TLC device is easy to clean with common solvents. To change the illumination unit, simply unscrew and remove the back cover, pull out entire lamp unit and replace with new one.

Device Measurements & Specifications

| | |
|---|---|
| Weight | Approx. 10.4 kg |
| Dimensions | 374 x 312 x 290 mm length x width x height |
| (External) Power supply | USB-C Power Supply Unit / 65 W |
| Power supply | External power supply unit (HA65NM170) is provided with separate power supply cord(s) (1.8 m long) fitting type B, G, N, I, D, E/F plugs (the plug must comply with local regulations) |
| Power requirements | 100 V – 240 V, 50 – 60 Hz for the External Power Supply Unit |
| Power consumption | Standard working condition: 18.8 W; standby mode: 0.83 W |
| Wavelength range | <ul style="list-style-type: none"> • Visible light (VIS) • UV-C - WL: 254 nm • UV-A – WL: 366 nm |
| Camera | <ul style="list-style-type: none"> • RGB sensor with 3280 x 2464 active pixel • One pixel captures an area of approx. 85 x 85 µm on TLC plate |
| Measuring technology | Documentation system for TLC plates by using video densitometric measurement |
| TLC/HPTLC plates sizes | 20 cm x 20 cm and smaller |
| Communication interfaces | <ul style="list-style-type: none"> • USB: 2 x USB-A (for directly connecting to an USB Stick) • Ethernet: LAN • WLAN IEEE 802.11 b/g/n (2.4 GHz) |
| Protection (IP) class | IP2X (for the main enclosure) |
| Ambient Condition: Temperature | <ul style="list-style-type: none"> • Operating temperature: 15 °C to 40 °C • Storage and transportation temperature: 5 °C to 40 °C. |
| Ambient Condition: Relative Humidity | <ul style="list-style-type: none"> • Operating humidity range: 20%RH to 80%RH • Storage and transportation humidity range: 15%RH to 95%RH • Ensure non-condensing conditions |
| Ambient Condition: Altitude | < 2000 m |

TLC Device & Accessories

| Article No. | Name | Description |
|--------------|-------------------|---|
| 1.52610.0001 | TLC Explorer | TLC Digital Documentation System |
| 1.52613.0001 | Illumination unit | Replacement part which is only needed in case a light source in your TLC Explorer has broken. The unit houses LEDs and optics for all illumination types, i.e. visible light as well as UV light, and can only be exchanged as a whole. |
| 1.52612.0001 | Baseplate | An additional Baseplate can simplify and speed up the workflow, since one Baseplate can be prepared while a second one is recorded in the TLC Explorer. |
| 1.52611.0001 | Power bank | Powers the TLC Explorer independent of a power grid – e.g. remote use |
| 1.52618.0001 | Dust cover | Replacement cover to protect your TLC Explorer against dust |

Application Fields

Screening, day-to-day analysis, matrix-rich samples, method development for HPLC or flash chromatography, in-process control, basic research



Pharma, Biopharma & Phytopharma

- API stability testing
- API candidate screening
- Herbal medicine screening
- Impurity analysis



Clinical Research and Diagnostic Labs

- Metabolite testing
- Biomarker analysis



Chemical Industry (e.g. Cosmetics)

- In-process control
- Screening of cosmetic compounds
- Impurity cosmetic analysis



Academia

- Basic research
- Compound development



Food & Beverage

- Quality control
- Stability testing
- Food additive analysis
- Food contaminant analysis



Forensic

- Screening for drugs and toxic compounds
- Detection of explosives



Environmental

- Water, soil, waste water analysis
- Contaminant analysis (e.g. pesticides, hormones)

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Analytical Products

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