ZEISS

Seeing beyond

ZEISS Primostar 3 iLED

Your LED-Fluorescence Microscope for Sputum Examination

ZEISS Primostar 3 iLED is your microscope to visualize small structures down to 0.2 – 5 µm. So you can even observe objects such as the rod-shaped *Mycobacterium tuberculosis*. The gold standard for sputum smear microscopy is Ziehl-Neelsen staining and brightfield light microscopy. According to WHO*, LED fluorescence microscopy is even more sensitive and less time-consuming, making it a real alternative to the conventional standard.

Ziehl-Neelsen or Auramine-O

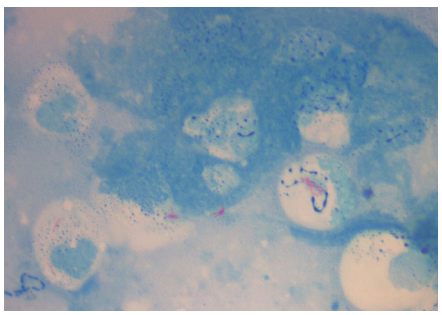
Analyze tuberculosis with Ziehl-Neelsen staining or use fluorescence excitation, e.g. with Auramine-O dye. Primostar 3 iLED allows you to switch easily between the two modes. Using Primostar 3 iLED, it is also possible to use all the applications and contrasting methods that are relevant to healthcare:

- Stained tissue sections in medicine
- Unstained cells in phase contrast in medicine and biology
- Examination and analysis of germs and bacteria in the lab and during field work

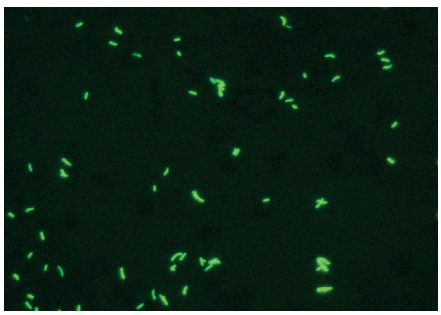
Highlights

With Primostar 3 iLED you:

- easily switch between fluorescence and brightfield illumination
- identify details up to four times faster than with brightfield microscopy*
- benefit from a special price as a customer from a country most heavily affected by TB



Representative image of conventional Ziehl-Neelsen staining of Mycobacterium tuberculosis*, courtesy of Dr. med. Harald Hoffmann, WHO – Supranationales Referenzlabor IML, Gauting, Germany*



Representative image of mycobacterium tuberculosis *visualized in fluorescence with auramine O. The mycobacteria are clearly visible as greenish yellow particles in front of a dark background.*

* https://apps.who.int/iris/bitstream/handle/10665/44602/9789241501613_eng.pdf

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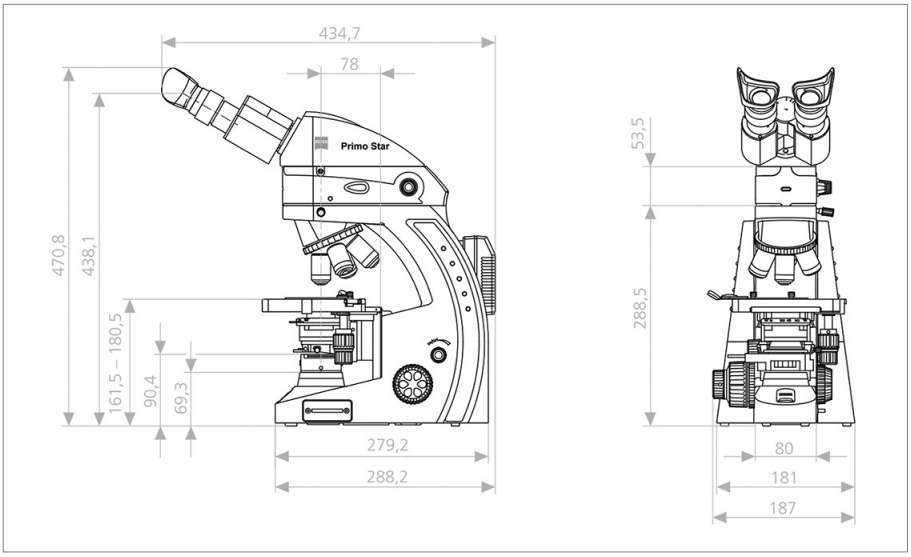

Special Features:

- All optical components in Primostar 3 are anti-fungus treated.
- Intensity indicator panels in a LED-display on both sides of stand
- Powerbank

Norms and Standards Met:

- CE, IvD 98/79/EG, CSA, ISO 9001, ISO 13485, ISO 14001.

Technical Data	
Dimensions (width × depth × height)	Approx. 190 × 410 × 449 mm (Stand with reflected fluorescent illumination)
Weight (Primostar 3 iLED)	Approx. 10 kg
Light Sources	
LED white light illumination	White-light LED 1 W 5,600 K (fixed), peak wavelength 440 nm, LED hazard group 1 according to DIN EN 62471 (low risk)
Homogeneous field illumination	20 mm
Analogous brightness adjustment	Approx. 15 to 100 %
Average operation lifetime	Approx. 30,000 hours
Suitable for objectives with magnifications from	4× to 100×
LED Module (reflected fluorescent illumination)	Max. 40 mW, 455 / 470 nm; LED hazard group 2 according to DIN EN 62471
Optical and Mechanical Data	
Stand with stage focus	
Using rough adjustment	45 mm / rev
Using fine adjustment	0.2 mm / rev
Total travel	20 mm
Switching objectives	Manually using four-way objective revolver
Objectives	Range of infinite focus objectives with W 0.8 screw thread
Eyepieces	30 mm diameter
With visual field number 20	PL 10× / 20 Br. foc.
With visual field number 22	PL 10× / 22 Br. foc.
Object stage	Mechanical rackless stage
Dimensions (width × depth)	140 × 135 mm
Range of adjustment (width × depth)	75 × 40 mm
Coaxial drive	Short, right
Verniers	Readable from right
Object holder	With spring clip left
Abbe condenser 0.9 / 1.25; fixed Köhler	For Vobj 4× to 100×
Abbe condenser 0.9 / 1.25; full Köhler	For Vobj 4× to 100×
Turret condenser	BF / Ph1 / Ph2 / Ph3 / DF

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Stop TB Partnership

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