



Inverted Fluorescence Microscope

STF52-N



2023 V1

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Inverted Fluorescence Microscope STF52-N

The SIMTRUM inverted fluorescence microscope is composed of LED epi-fluorescence system and inverted biological microscope. It adopts excellent infinite optical path, long working distance plan achromatic objectives and wide field eyepiece. The compact and stable high rigid body satisfied the anti vibration requirements of microscope operation. Modular design provides safely and quickly lighting adjustment and switch of fluorescent filter groups. This SIMTRUM microscope is used for microscope observation of cell tissue and transparent liquid tissue, as well as fluorescence observation in the fields of bio-pharmaceutical, medical detection, disease prevention, etc.

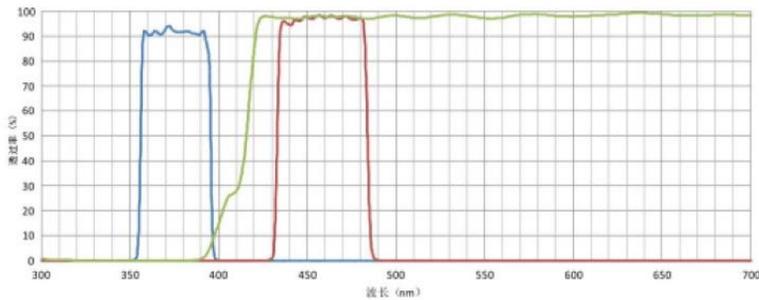


Product Advantages

- Long lifetime, stable output to ensure effective excitation
- Digital screen show and remember light intensity
- Strong light intensity of short light path, reliable and safety
- Easy to use, no need debugging, instant ON/OFF
- Varies of fluorescence filter groups
- Compatible to microscopes in world famous brand
- Professional customize solution for different users
- Fluorescence module is removable, upgrading to 5 channels with 3/4 color fluorescent band optional

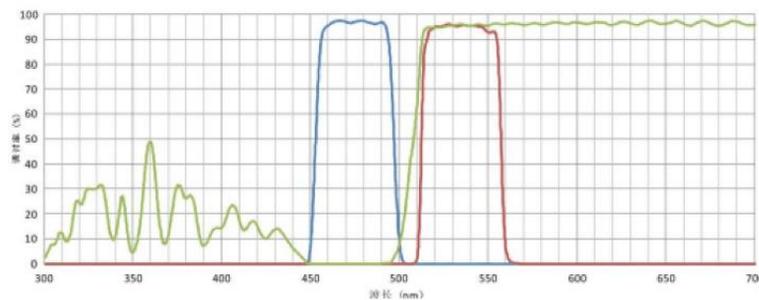


Fluorescence illuminator



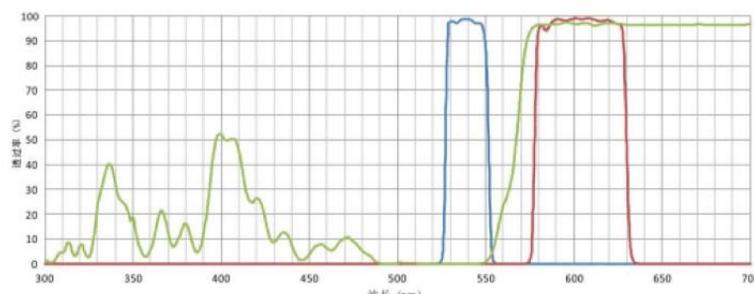
DAPI

- BP360-390
- DM415
- BA435-485



FITC

- BP460-495
- DM505
- BA510-550



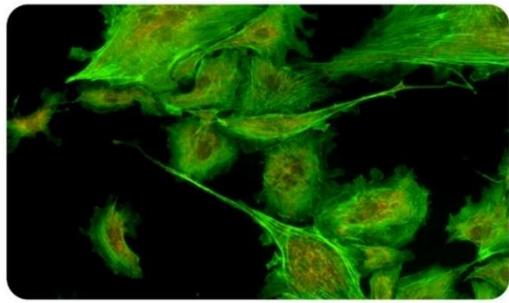
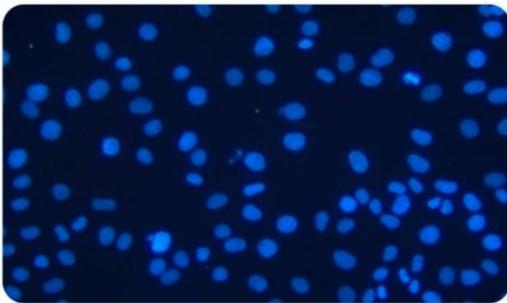
TRITC

- BP528-553
- DM565
- BA578-633

Product Features

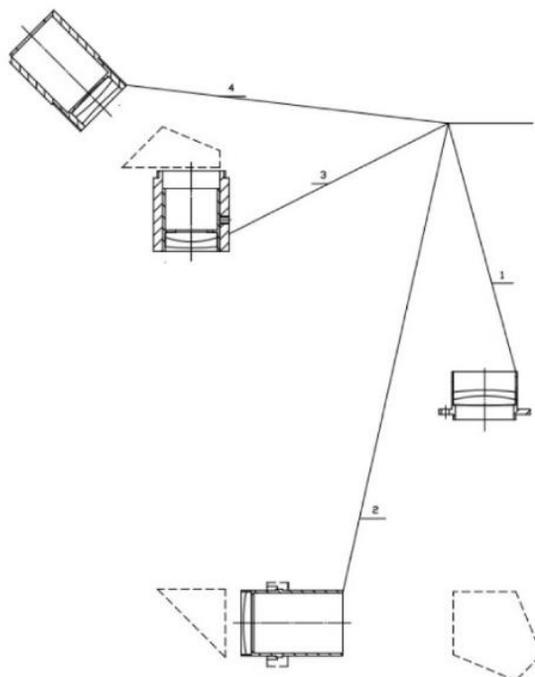
- Built-in 0.75X C-mount, it has a great effect on image correction
- Compatible with all below 1.2 inches cameras
- Clear objectives imaging and no field curvature halo, high contrast
- SWF10X/22S eyepiece

SWF10X/22 eyepiece provides a wide and bright field of vision, higher overall clarity of the image, enabling users to quickly capture the target area, high eye point design effectively alleviate visual fatigue.



- New optical path design

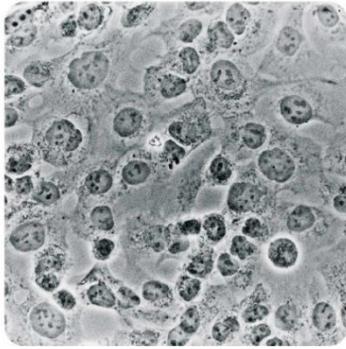
Ensuring the imaging quality and reduce the optical signal transmission occupied space through the optimization optical path design



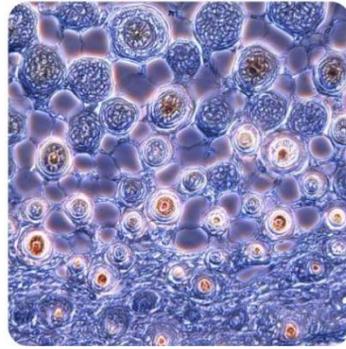
Phase Contrast

Phase Contrast Observation

- The introduction of phase contrast has made human vision a new expansion.
- Phase contrast observation with an inverted microscope can clearly observe transparent living samples, which are mostly used for cell culture.
- Principle: The retention degree of light passing through substances of different densities is different (the higher the density, the longer the residence time)



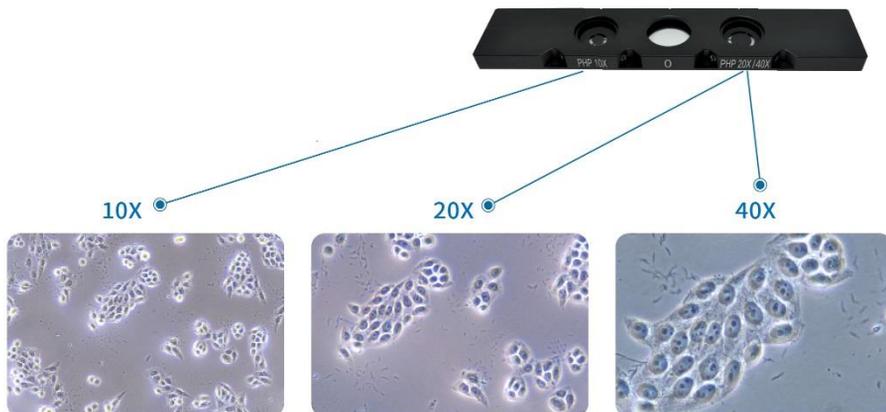
No phase contrast effect



Has phase contrast effect

Phase Contrast Plate

Phase contrast plate converts optical path difference or phase difference into amplitude difference to enhance contrast. Light absorbing substances in the plate to enlarge the potential difference of deviated light, two light groups converge into a beam through the lens, the interference phenomenon of super position or cancellation occurs and show the visible light and dark difference.

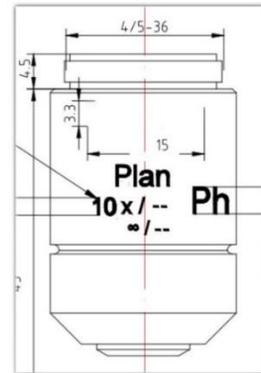


Objectives and eyepieces

Objectives

- High numerical aperture objectives
- High transparent glass and advanced coating technology are used to halo
- Upgraded plan phase contrast objectives

Positive phase contrast the reasonability of phase difference light and shade distribution objectives in long working distance increase contrast and resolution of imaging are greatly improved.



- Semi-apochromatic fluorescence objectives

High-quality fluorescence objectives are optional by needs, image performance is improved, better UV transmission than conventional objectives, and comparable to international famous brands quality.



Eyepiece

- Observation tube

45°45°inclined, Interpupillary distance 50-75mm, diopter is adjust-able. You can stand or sit to observe the cells, and the operation is simple and convenient, reducing fatigue at work.



- Eyepiece

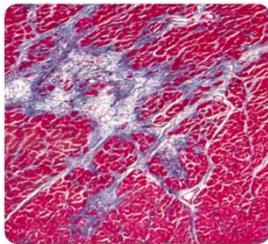
SWF10X/22 eyepiece provides a wide and bright field of vision, higher overall clarity of the image, enabling users to quickly capture the target area, high eye point design effectively alleviate visual fatigue.



Application

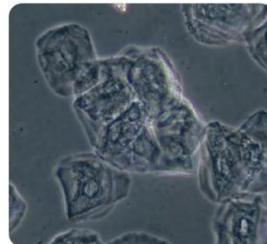
- **Living tissue observation**

Generally, small pieces of diseased tissues, body fluids, and cells of animals are obtained by surgical cutting, clamping, or scraping and aspiration. After pathological tissue or cytological methods are made into thin sections, the pathological diagnosis can be made by observing under a microscope.



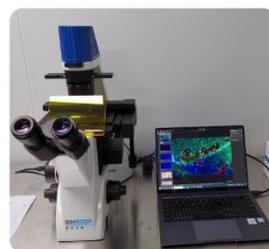
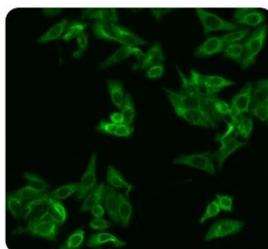
- **Bio-pharmacy**

Biopharmaceuticals are the research results of microbiology, biology, medicine, and biochemistry. A class of products used for prevention, treatment and diagnosis made from organisms, biological tissues, cells, organs, and body fluids using scientific principles and methods.



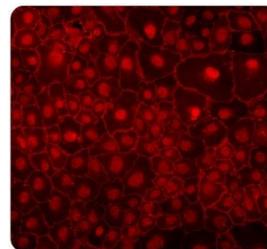
- **Medical diagnosis**

Medical diagnosis is the examination of materials taken from the human body. Through microbiology, immunology, biochemistry, genetics, haematology, biophysics, cytology, etc, provide information for the prevention, diagnosis, treatment of human diseases and assessment of human health.



- **Prevent disease**

Conduct epidemiological monitoring of the occurrence, development and distribution of major diseases, and propose prevention and control countermeasures. Such as infectious diseases, parasitic diseases, chronic non-communicable diseases, public hazards, food-borne diseases, poisoning, etc.



Specifications

Item	Specifications	
Eyepiece	SWF10X/22S plan eyepiece, high eyepoint	
	Centering telescope	
Observation Tube	45°inclined, Interpupillary distance 53-75mm, diopter is adjustable	
Objectives	Long working distance plan M-UPLFLN4X/0.13 Work distance:17.15mm	
	Infinity long working distance achromatic plan10X/0.25 Work distance:4.1mm	
	Infinity long working distance achromatic plan40X/0.58 Work distance:2.5mm	
	Infinity long working distance achromatic phase contrast plan10X/0.25Ph WD:4.1	
Epi-fluorescence Illumination System	Cold LED light source, brightness continuously adjustable	
	Standard with three excitation filter groups, other filter groups are optional	
	Excitation filter	Excitation wavelength
	Ultraviolet (UV)	360-390nm
	Blue (B)	460-495nm
Focus System	Coaxial coarse/fine focus, with tension adjustable and up stop, minimum division of fine focusing is 2μm.	
	Nosepiece	
Stage	Quintuple nosepiece,ball bearing with anti fungus device	
	Glass rotundity stage overall size is Φ118mm, inner size is Φ68mm	
	Culture dish holder 1	86mm×129.5mm, suitable for circular culture dish Φ90mm
	Culture dish holder 2	34mm×77.5mm, suitable for circular culture dish Φ68.5mm
	Culture dish holder 3	57mm×82mm, suitable for circular culture dish Φ60mm
Transmitted Illumination System	Culture dish holder 4	
	29mm×77.5mm, suitable for circular culture dish Φ35mm	
	White LED lamp with brightness adjustable	
Light Baffle	Push-pull type condenser, numerical aperture 0.3	
	Green filter	
Condenser Lighting System	110mm x 70mm	
	Push-pull type condenser, working distance 55mm	
Camera Adapter	9W LED, with brightness adjustable	
	Internal set 0.75X C-mount	

