

STALWART

Inverted Biological Microscope STM-2094C



STM-2094C

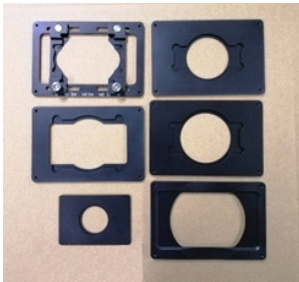
Introduction

STM-2094C Inverted Biological Microscope is a high level microscope which is specially designed for medical and health units, universities, research institutes to oSTMerve cultured living cells. With innovative infinite optical system and ergonomic design, it has excellent optical performance and easy to operate features. The microscope has adopted long life LED lamps as transmitted and fluorescent light source. Digital cameras can be added to the microscope on left side to take photos, videos and make measurement. The tilting head can offer a comfortable working mode. The angle of transmitted illumination arm can be adjusted, so petri-dish or flask can be easily moved out.

STM-2094C has an intelligent illumination management system, the illumination intensity will automatically change after you change the objectives and make the microscope to get the best illumination effect, STM-2094C also has a LCD screen to show the working mode like magnification, light intensity, transmitted or fluorescent light source, working or sleep etc.

Features

- Excellent infinite optical system, $\Phi 22\text{mm}$ wide field eyepiece, $5^\circ\text{-}35^\circ$ inclined viewing head, more comfortable for oSTMervation.
- Camera port is on left side, less disturb for operation. Light distribution (both): 100 : 0 (100% for eyepiece); 0 : 100 (100% for camera).
- Long working distance condenser N.A. 0.30, Working distance: 75mm(with condenser), Working distance: 187mm (without condenser), available for extra high culture dishes. Condenser is detachable, without condenser, it is suitable for culture flask.
- Large size stage, convenient for research. Stage Size: 170mm(X) \times 250 (Y)mm, Mechanical stage moving range: 128mm (X) \times 80 (Y)mm. 6 types of petri-dish holders are available.



- STM-2094C has an intelligent illumination management system.
 1. Coded Quintuple Nosepiece can memorize the illumination brightness of each objective. When different objectives are converted to each other, the light intensity is automatically adjusted to reduce visual fatigue and improve work efficiency.
 2. Use a dimming knob on left of the base to achieve multiple functions.
 - Click: Enter standby(sleep) mode
 - Double click: light intensity lock or unlock
 - Rotation: Adjust brightness
 - Press + clockwise rotate: Switch to the transmitted light source
 - Press + contrarotate: Switch to the fluorescent light source
 - Press 3 seconds: Set the time of turning off the light after leaving
 3. Display microscope working mode.

The LCD screen in the front of the microscope can display the working mode of the microscope, including magnification, light intensity, sleep mode and so on.



Start & working



Lock mode



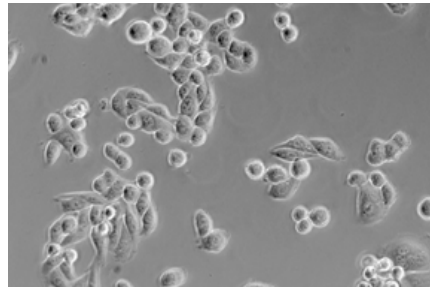
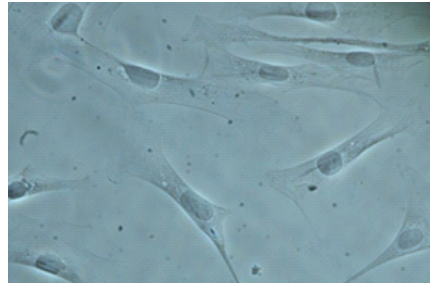
Turn off the light
in 1 hour



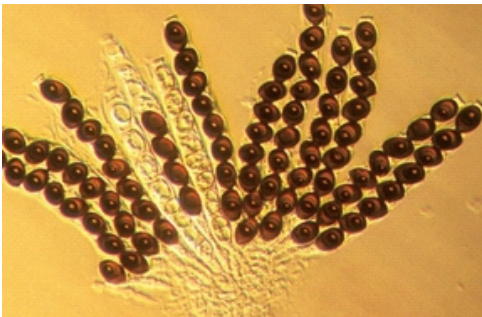
Sleep mode

Features

- The microscope body is compact, stable and suitable for clean bench. The microscope body has been coated with anti-UV material and can be placed into the clean bench for sterilization under UV lamp.
 - Phase Contrast, Hoffman Modulation Phase Contrast and 3D Emboss Contrast observation method are available with transmitted illumination.
1. Phase contrast observation is a microscopic observation technique that produces a high-contrast microscopic image of a transparent sample by utilizing a change in refractive index. The advantage is that the details of live cell imaging can be obtained without staining and fluorescent dyes.
Application range: Living cells culture, Micro-organism, Tissue slide, cell nuclei and organelles etc.



2. Hoffman Modulation Phase Contrast. With slant light, Hoffman phase contrast changes phase gradient into light intensity variety, it can be used to observe unstained cells and living cells. Giving 3D effect for thick samples, it can greatly reduce the halo in thick specimens.
3. 3D Emboss Contrast. No need for expensive optical components, just add a contrast adjustment slider to achieve a pseudo 3D glare-free image. Both glass culture dishes or plastic culture dishes can be used.



With Hoffman Modulation
Phase Contrast



With 3D Emboss Contrast

- LED Fluorescent attachment is optional.

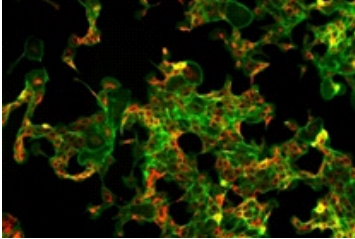
Features

- LED Fluorescent attachment is optional.
1. LED light makes fluorescent observation easier.

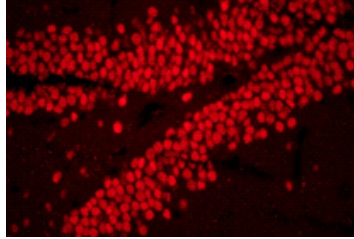
Fly-eye lens and Kohler illumination have provided a uniform and bright field of view, which is benefit to get high definition images and perfect details. Compared with traditional mercury bulb, the LED lamp has much longer working life, it saves money and has greatly improved the working efficiency. The problems of preheating, cooling and high temperature of mercury lamp has also been solved.

2. Suitable for a variety of fluorescent dyes.

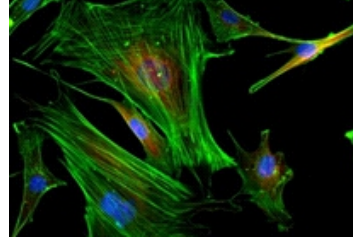
The LED fluorescent attachment has equipped with 3 fluorescent filter blocks, it can be applied to a wide range of dyes and capture clear high contrast fluorescence images.



Breast cancer



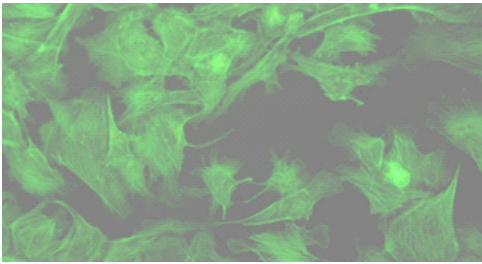
Hippocampus



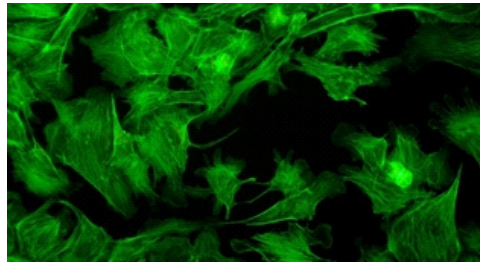
Mouse brain nerve cells

3. Light shutter on transmitted is available to provide a better fluorescent effect.

The light shutter can effectively block the external light, increase the contrast of the fluorescent image and provide a high quality fluorescent image. When need phase contrast observation, the light shutter is very convenient to be removed from the light path, avoiding influence on the quality of phase contrast.



Without light shutter



With light shutter

Specification

Item	Specification	STM-2094C	STM-2094CF	
Optical System	NIS 60 Infinite Optical System, Tube length 200mm	Standard	Standard	
Viewing Head	Seidentopf Tilting Binocular Head, adjustable 0-35° inclined, Interpupillary Distance 48-75mm, Left side camera port, Light distribution: 100: 0 (100% for eyepiece), 0:100 (100% for camera), Eyepiece Tube Diameter 30mm	Standard	Standard	
Eyepiece	SW10×/ 22mm	Standard	Standard	
	WF15×/ 16mm	Optional	Optional	
	WF20×/ 12mm	Optional	Optional	
Objective (Parfocal distance 60mm, M25×0.75)	NIS60 Infinite LWD Plan Achromatic Objective	4×/0.1, WD=30mm	Standard	Standard
		10×/0.25, WD=10.2mm	Optional	Optional
		20×/0.40, WD=12mm	Optional	Optional
		40×/0.60, WD=2.2mm	Optional	Optional
	NIS60 Infinite LWD Plan Phase Contrast Achromatic Objective	PH4×/0.1, WD=30mm	Optional	Optional
		PH10×/0.25, WD=10.2mm	Standard	Standard
		PH20×/0.40, WD=12mm	Standard	Standard
		PH40×/0.60, WD=2.2mm	Standard	Standard
	NIS60 Infinite LWD Plan Semi- -APO Fluorescent Objective	4×/0.13, WD=17mm, cover glass=-	Optional	Optional
		10×/0.3, WD=7.4mm, cover glass=1.2mm	Optional	Optional
		20×/0.45, WD=8mm, cover glass=1.2mm	Optional	Optional
		40×/0.60, WD=3.3mm, cover glass=1.2mm	Optional	Optional
	NIS60 Infinite LWD Plan Semi- APO Phase Contrast Objective	4×/0.13, WD=17.78mm, cover glass=-	Optional	Optional
		10×/0.3, WD=7.4mm, cover glass=1.2mm	Optional	Optional
		20×/0.45, WD=7.5-8.8mm, cover glass=1.2mm	Optional	Optional
		40×/0.60, WD=3-3.4mm, cover glass=1.2mm	Optional	Optional

Specification

Nosepiece Condenser	Coded Quintuple Nosepiece	Standard	Standard
	Long Working Distance Condenser, N.A. 0.3, Working Distance 75mm (with condenser), 187mm (without condenser)	Standard	Standard
Telescope	Centering Telescope: used to adjust the center of phase annulus	Standard	Standard
Phase Annulus	10×-20×-40× Phase Annulus Plate (center adjustable)	Standard	Standard
	4× Phase Annulus Plate	Optional	Optional
Stage	Stage 170 (X)×250(Y) mm with glass insert plate (diameter 110mm)	Standard	Standard
	Attachable Mechanical Stage, X-Y Coaxial Control, Moving Rang: 128mm×80mm, accept 5 types of petri-dish holders, well plates and stage clips	Standard	Standard
	Auxiliary stage 70mm×180mm, used to extend the stage	Optional	Optional
	Universal Holder: used for Terasaki plate, glass slide and Φ35-65mm petri dishes	Standard	Standard
	Terasaki Holder: used for Φ35mm Petri Dish Holder and Φ65mm petri dishes	Optional	Optional
	Glass Slide and Petri Dish Holder Φ54mm	Optional	Optional
	Glass Slide and Petri Dish Holder Φ65mm	Optional	Optional
	Petri Dish Holder Φ35mm	Optional	Optional
	Petri Dish Holder Φ90mm	Optional	Optional
Focusing	Coaxial Coarse and Fine Adjustment, tension adjustment, Fine Division 0.001mm, Fine stroke 0.2mm per rotation, Coarse stroke 37.5mm per rotation. Moving Range: up 7mm, down 1.5mm; Without limitation can up to 18.5mm	Standard	Standard
Transmitted Illumination	3W S-LED Koehler illumination, Brightness Adjustable	Standard	Standard
EPI-Fluorescent Attachment	LED illuminator, built-in Fly-eye lens, can be configured with up to 3 different fluorescence blocks; with B, G, U fluorescent filters	Optional	Optional

Specification

	B1, V, R fluorescent filters	Optional	Optional
Hoffman phase contrast	Hoffman Condenser with 10×, 20×, 40× insert plate, centering telescope and special objective 10×, 20×, 40×	Optional	Optional
3D Emboss Contrast	Main emboss contrast plate with 10×-20×-40× will be inserted into condenser	Optional	Optional
	Auxiliary emboss contrast plate will be inserted into slot which is near viewing head	Optional	Optional
C-mount Adapter	0.5× C-mount Adapter (focus adjustable)	Optional	Optional
	1× C-mount Adapter (focus adjustable)	Optional	Optional
Other Accessories	ECO function: will turn off after 15 minutes if no user	Standard	Standard
	Warm stage	Optional	Optional
	Light shutter, can be used to block the external light	Standard	Standard
	Dust cover	Standard	Standard
Power Supply	AC 100-240V, 50/60Hz	Standard	Standard
Fuse	T250V500mA	Standard	Standard
Packing	2cartons/set, Packing Size: 47cm×37cm×39cm, 69cm×39cm×64cm, Gross Weight: 20kgs, Net Weight: 18kgs	Standard	Standard

Application

STM-2094C inverted microscope is used by medical and health units, universities, research institutes for observations of micro-organisms, cells, bacteria and tissue cultivation. They can be used for continuous observation of process of cells, bacteria grow and divide in the culture medium. Videos and images can be taken during the process. These microscopes are widely used in cytology, parasitology, oncology, immunology, genetic engineering, industrial microbiology, botany and other fields