BS-2081F Research Fluorescent Biological Microscope

Introduction

BS-2081F biological fluorescent microscope has been designed to present a safe, comfortable and precision observation experience. B, G, U, V, R fluorescent filters are available. With perfectly performed structure, high-definition optical image and ergonomical operating system, BS-2081F realizes professional analysis and meets all the needs of research in biological, medical, life science and other fields.

Features

1. Sapphire Glass Stage is optional.

Mechanical stage with sapphire glass insert is optional, it is endurable, never could be scratched and allows users to clear the stage easily.

2. Put Slide by One Hand.

It is easy for users to put slides by one hand due to the special designed slide clip.

3. Tilting Trinocular Head is optional.

(5) The eye tube can be adjusted from 0°-35°.
(6) Digital cameras or DSLR cameras can be connected to the trinocular tube.
(7) The beam splitter has 3-position (100:0, 20:80, 0:100).
(8) The splitter bar can be assembled on the either side according to user's requirements.

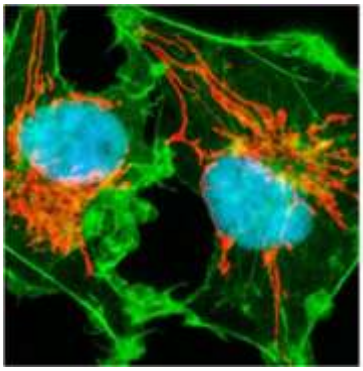
4. ECO Function.

The transmitted light would be off automatically after 30 minutes from operators leave. It can not only save energy, but also keep the lamp life longer.

5. Low Position X-Y Knobs.

The height of the stage control knobs can be adjusted up or down by 18mm to ensure a comfortable hand position, the tension of X-Y control knob also can be adjusted.

6. 6-Position Turret for fluorescent filter blocks.



Animal Fiber Cell

All the fluorescent filter blocks use the high-performance filter lens. Up to 6 filter blocks can be installed in the turret, that allows users to view different stained specimens at the same time.

Application

This microscope is an ideal instrument in biological, histological, pathological, bacteriology, immunizations and pharmacy field and can be widely used in medical and sanitary establishments, laboratories, institutes, academic laboratories, colleges and universities.

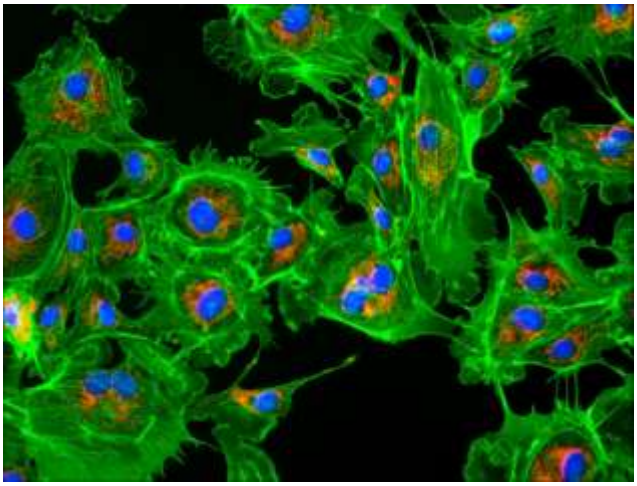
Specification

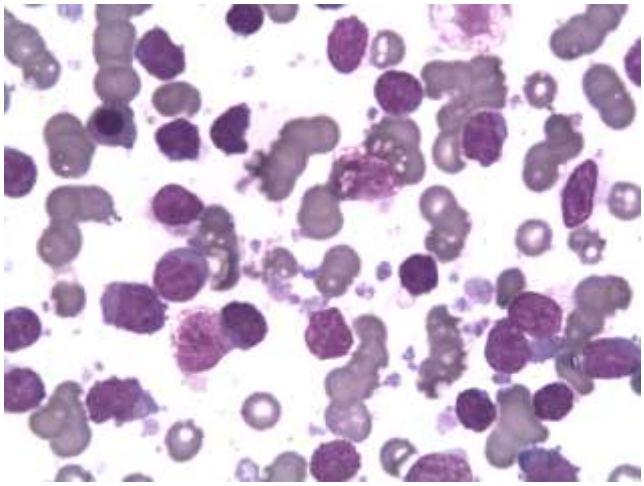
Item	Specification		BS-2081F
Optical System	NIS60 Infinite Color Corrected Optical System		●
Viewing Head	Seidentopf Trinocular Head, 30° inclined, interpupillary distance: 47mm-78mm; splitting ratio Eyepiece:Trinocular=100:0 or 20:80 or 0:100		●
	Ergo Tilting Trinocular Head, adjustable 0-35° inclined, interpupillary distance 47mm-78mm; splitting ratio Eyepiece:Trinocular=100:0 or 20:80 or 0:100		○
	Seidentopf Binocular Head, 30° inclined, interpupillary distance: 47mm-78mm		○
Eyepiece	Super wide field plan eyepiece SW10X/25mm, diopter adjustable		●
	Super wide field plan eyepiece SW10X/22mm, diopter adjustable		○
	Extra wide field plan eyepiece EW12.5X/17.5mm, diopter adjustable		○
	Wide field plan eyepiece WF15X/16mm, diopter adjustable		○
	Wide field plan eyepiece WF20X/12mm, diopter adjustable		○
Objective	N-PLN Plan Objective	N-PLN 2X/NA=0.06, WD=7.5mm	○
		N-PLN 4X/NA=0.10, WD=30mm	●
		N-PLN 10X/NA=0.25, WD=10.2mm	●
		N-PLN 20X/NA=0.40, WD=12mm	●
		N-PLN 40X/NA=0.65, WD=0.7mm	●
		N-PLN 100X(Oil)/NA=1.25, WD=0.2mm	●
		N-PLN 50X(Oil)/NA=0.95, WD=0.19mm	○
		N-PLN 60X/NA=0.80, WD=0.3mm	○
		N-PLN-I 100X (Oil, with Iris Diaphragm)/ NA=0.5-1.25, WD=0.2mm	○
	N-PLN PH Plan Phase Contrast Objective	N-PLN PH 10X/NA=0.25, WD=10.2mm	○
		N-PLN PH 20X/NA=0.40, WD=12mm	○
		N-PLN PH 40X/NA=0.65, WD=0.7mm	○
		N-PLN PH 100X(Oil)/NA=1.25, WD=0.2mm	○
	N-PLFN Plan Semi-apochromatic Fluorescent Objective	N-PLFN 4X/NA=0.13, WD=17.2mm	○
		N-PLFN 10X/NA=0.30, WD=16.0mm	○
		N-PLFN 20X/NA=0.50, WD=2.1mm	○
		N-PLFN 40X/NA=0.75, WD=1.5mm	○
		N-PLFN 100X(Oil)/NA=1.4, WD=0.16mm	○
Nosepiece	Backward Sextuple Nosepiece (with DIC slot)		●
Condenser	Swing-out type condenser N.A.0.9/0.25(Auto)		●
	Turret Phase Contrast Condenser		○
	Dark-field Condenser (Dry), used for objectives lower than 100X		○
	Dark-field Condenser (Oil), used for 100X objective		○

Transmitted Illumination	3W S-LED lamp, center pre-set, intensity adjustable	●
	12V/100W halogen lamp, center pre-set, intensity adjustable	○
Focusing	Low-position coaxial coarse and fine focusing, fine division 1μm, Moving range 35mm	●
Stage	Double layers mechanical stage, size 190mmX152mm; moving range78mmX32mm (Right or left handle); precision: 0.1mm	●
	Double layers mechanical stage, size 190mmX152mm; moving range 78mmX32mm (Right or left handle); precision: 0.1mm; with Sapphire Crystal Glass Insert	○
DIC Kit	10X DIC Objective Lens	○
	20X DIC Objective Lens	○
	Polarizer for DIC Kit	○
	DIC insert plate(10X/20X), can be inserted into the DIC slot on nosepiece	○
	DIC insert plate(40X/100X) can be inserted into the DIC slot on nosepiece	○
	DIC Turret Condenser	○
Reflected fluorescence illuminator	Turret with 6 filter block cubes position, with iris field diaphragm and aperture diaphragm, central adjustable; with filter and polarizing slot; fluorescence filters (B,G fluorescent filters).	●
	U,V,R fluorescent filters	○
	100W mercury lamp house, filament center and focus adjustable; with reflected mirror, mirror center and focus adjustable.	●
	Digital power controller, wide voltage 100-240VAC	●
	ND6/ND25 Filter	○
Other Accessories	0.5X C-mount Adapter	○
	1X C-mount Adapter	○
	Dust Cover	●
	Power Cord	●
	Cedar Oil 5ml	●
	Simple Polarizing kit	○
	Calibration slide 0.01mm	○
	Multi Viewing Attachment for 2/3/5/7/10 person	○

Note: ● Standard Outfit, ○ Optional

Sample Image





Accessories

1. N-PLN Series Plan Objectives.

The Plan objectives can provide flat high transmittance image from visible light to NIR light. They are usually used for bright-field viewing as the high signal-to-noise, high resolution and high contrast features.

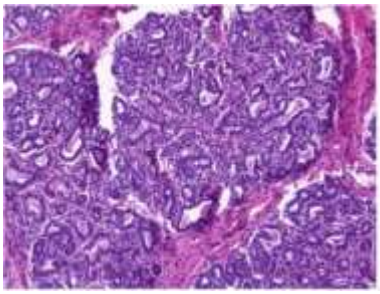
2. N-PLN PH Series Plan Phase Contrast Objectives.

These plan phase contrast objectives are specially designed for phase contrast observation. They are good choice for clinic and scientific research. These objectives can provide advanced flat image of 25mm FOV under transmitted bright field.

3. N-PLFN Series Plan Semi-APO Fluorescent Objectives.

Owe to the multilayers coating technology, these Semi-APO objectives can compensate the spherical aberration and the chromatic aberration from ultraviolet and infrared light. High-sensitive fluorescence performance of the objectives ensures the sharpness, definition and color rendition of images.

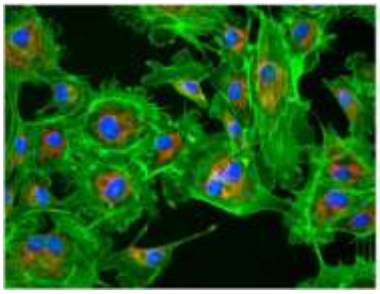
4. Bright field Viewing.



Mammary Gland (active stage)

Brighter image, high resolution and flatness, suitable for all the magnifications.

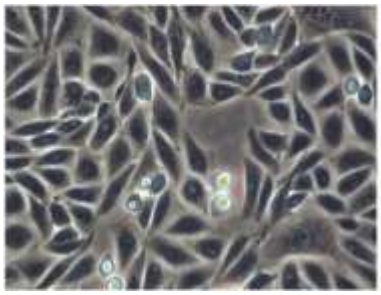
5. Fluorescent Viewing.




Arterial Cell

The compact epi-fluorescent components include noise elimination feature which ensures images captured are bright, with high contrast and high signal-to-noise ratio.

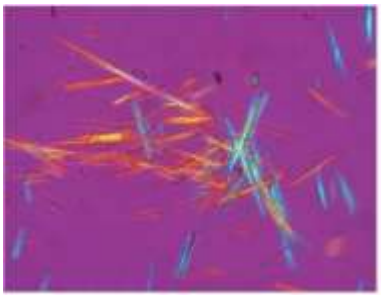
6. Phase Contrast Viewing.




Rat Ovarian Cell

Users can get high contrast image of neutral background color whatever the magnification is. It is suitable for viewing non-stained specimen.

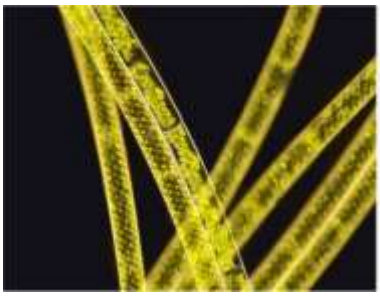
7. Polarizing Viewing.




Uric Acid Crystal

It is quite suitable for viewing collagen, amyloid and crystal etc., double refracting specimens.

8. Dark-field Viewing.




Spirogyra

It can be used for clearly viewing of blood or flagellum etc., fine struction.

9. Multi Viewing Heads.

2 Viewing heads (Face to Face)

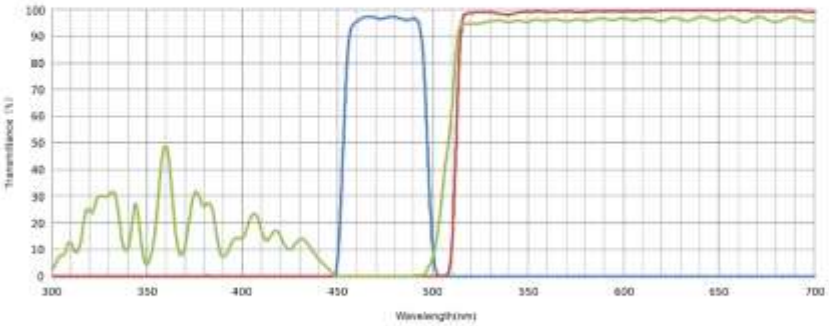
2 Viewing heads (Side to Side)

5 Viewing heads

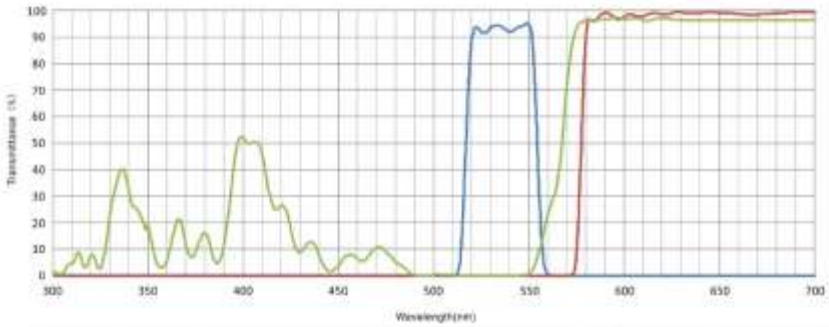
10. Fluorescent filters.

Model	Description	Excitation	Dichroic Mirror	Barrier Filter
FL-B	B filter block	BP460-495	DM505	BA510
FL-B1	B1 filter block	BP460-495	DM505	BA510-550
FL-G	G filter block	BP510-550	DM570	BA575
FL-U	U filter block	BP330-385	DM410	BA420
FL-V	V filter block	BP400-410	DM455	BA460
FL-R	R filter block	BP620-650	DM660	BA670-750
FL-O	Fluorescent Block without filters	Optional Excitation and Barrier Filters is Φ25mm, Dichroic Mirror is 5.8X37.5/1mm, the filters can be installed in the block.		

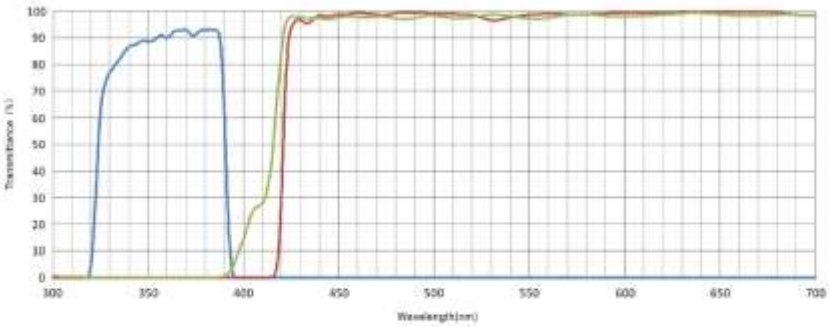
Spectral range



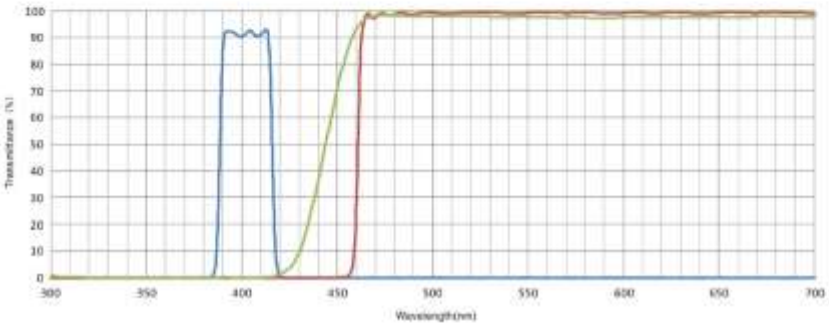
FL-B
- BP 460-495
- DM 505
- BA 510IF



FL-G
- BP 510-550
- DM 570
- BA 575IF

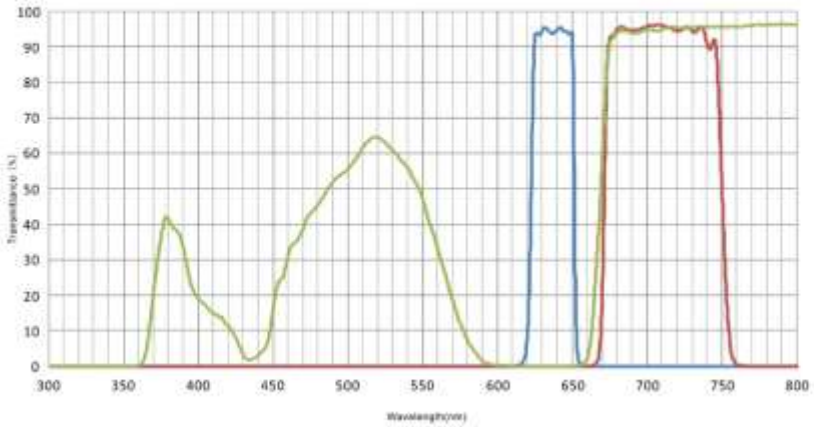


FL-U
- BP 330-385
- DM 410
- BA 420IF

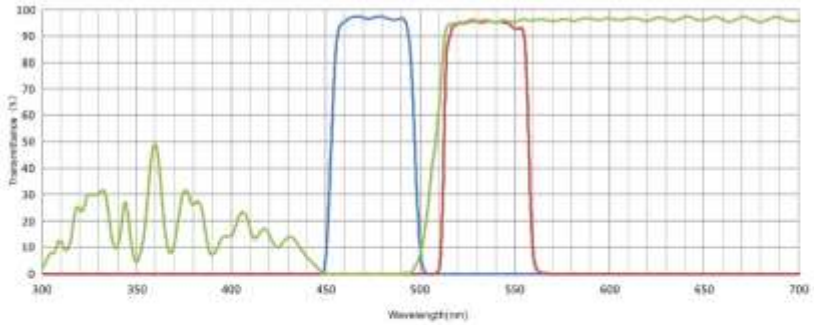


FL-V
- BP 400-410
- DM 455
- BA 460IF

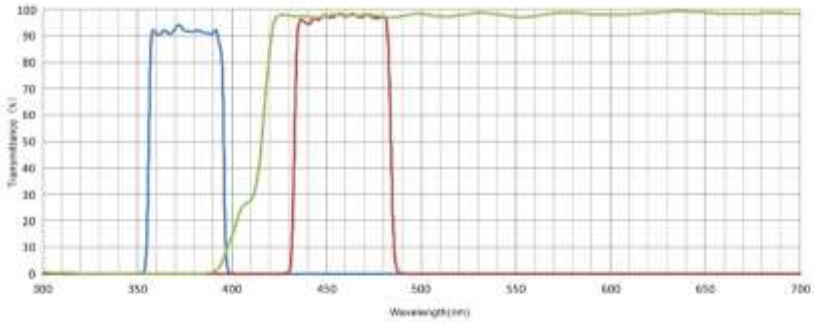
Spectral range



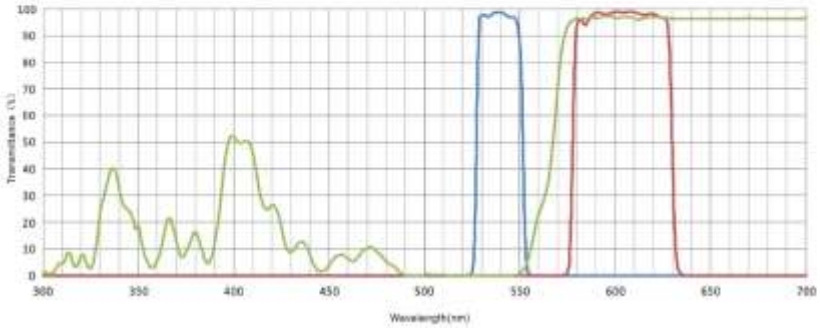
FL-R
- BP620-650
- DM660
- BA670-750



FL-FITC
- BP460-495
- DM505
- BA510-550

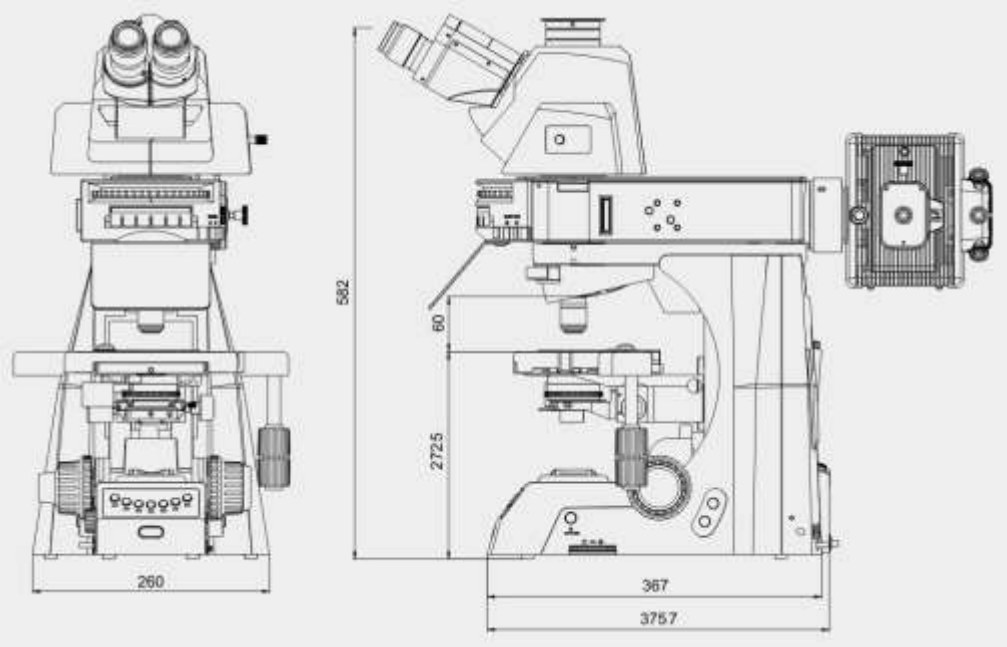


FL-DAPI
- BP360-390
- DM415
- BA435-485



FL-TRITC
- BP528-553
- DM565
- BA578-633

Dimension



Unit: mm