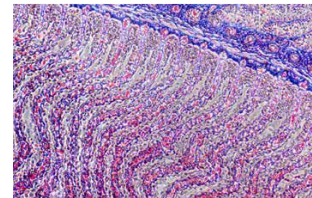


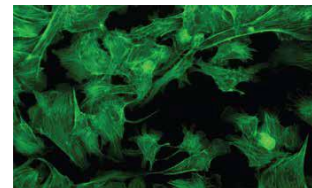
DESCRIPTION

ACUCAL Upright Research Biological Microscope ACUBL-U7 is designed for a wide range of applications. It features a very high contrast, which ensures an outstanding image quality and resolution. This makes it ideal for demanding and professional applications. The intelligent automatic brightness control and the ergonomic is specially designed for life science research and can meet the needs of various microscopic imaging in the laboratory. Stable and compact mechanical structure, ergonomic design, reasonable layout, comfortable to use, can operate the microscope in a natural posture.

OBSERVATION METHODS

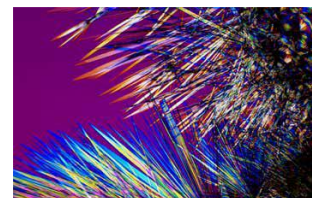


Bright Field



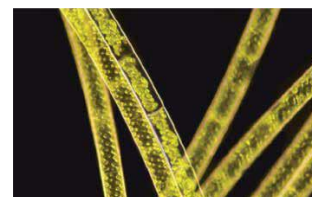
Fluorescent

OPTIONAL



Phase Contrast

Polarisation



Dark Field

The microscope adopts a modular design and can realize observation methods such as Bright field, Dark field, Fluorescence, Phase Contrast and Polarized light. LIM Option for Illumination Intensity auto adjustment with change of Objective It is an ideal tool for experimental teaching, scientific research, and medical inspection.

The microscope offers excellent optical performance and ease of use, and is ideal for scientific tasks. Macro & Micro viewing capabilities: slides, material & dishes. It is the perfect laboratory microscope for life sciences, histology & microbiology .

TECHNICAL SPECIFICATION

Main Body & Optical System

- INFINITY CORRECTED OPTICAL SYSTEM can provide high contrast and very flat image with sharp, excellent resolution and high signal-to-noise ratio imaging
- Upright Modular Frame, Highly Rigid, ergonomic design, Vibration free Aluminium alloy casting, Anti rust heavy metal stand, Anti-Microbial treated optics, Ergonomics shaped single mold Sturdy Design & Stable with kohler illumination.
- Low-hand focus mechanism, low-hand stage and other ergonomic designs to ensure the user can perform microscope operation in the most comfortable situation.
- All metallic parts are corrosion proof, acid proof, and stain proof.
- Conforming to Pathological IS: 4381 latest, Research IS: 5204 latest Indian Standards.

Observation Head : Binocular or Trinocular

- Sidentopf Ergonomics Binocular Observation tube Inclined at 30°, 360° rotation.
- Trinocular Tube & Port for imaging facility Inclined at 30°, C mount adapter with camera module.(Optional)
- Beam Splitting ratio 50%/50% for simultaneous image viewing on eyepiece and computer (Eyepiece: trinocular 100/0 or 0/100 is optional).
- Inter-pupillary distance adjustment from 47mm to 78mm.

Display

- The LCD screen on the front of the microscope displays the use status of the microscope, including magnification, light intensity, standby status, lock for lighting-adjustment, time sleeping etc.
- 5- element display on Front side of the stand and long-life blue LEDs.
- This intensity display is well readable from several meters distance.

Eyepiece

- Compensating High Eyepoint Wide field 10X (paired) Field of View & Field number 22.
- Eyepiece outer mounting barrel diameter or Inner diameter of ocular sleeve (eyetube)30mm.
- Anti-fungal & Anti-reflection hard coated conforming to IS: 8275/1976 (latest)
- High Quality & Anti mould eyepieces to get the Image of object well defined over the entire field with good contrast rendition and practically free from spurious color effects The 22 mm field of view produces an wide-angle image for a more comprehensive observation content and faster sample observation.
- Diopter adjustment Facility on both Eyepieces.

Nose Piece

- Coded Inward reverse Facing Quintuple Revolving, ball bearing type with click stops.
- Nosepiece provided with rubber grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment.

Objectives: Flat Field High Resolution & High Contrast, Anti-fungal & Anti-reflection, Uniformly Centred, Interchangeable & Parfocal, Covered with standard cover glass thickness.

- Objectives have Suitable prominent marking for easy identification : Color coded ring, magnification, NA and nature of objective mentioned
- Provided with Immersion oil & unbreakable containers for storing the objective lenses.

Infinity Plan Achromatic for Bright field Applications	<ul style="list-style-type: none">• ∞ PL 4x/0.10, W.D.30mm• ∞ PL 10x /0.25, W.D.10.2mm• ∞ PL 40x/0.65, SL W.D.1.5mm• ∞ PL 100x/1.25(Oil), SL W.D.0.2mm
	<ul style="list-style-type: none">• ∞ PL 2x/0.06, W.D.7.5mm (Optional)• ∞ PL 5x/0.12, W.D.6.5mm (Optional)• ∞ PL 20x/0.40, W.D.4.8mm (Optional)• ∞ PL 100x/1.10(Water), W.D.0.2mm (Optional)• ∞ PL 100x/1.25(Dry), SL W.D.0.2mm (Optional)• ∞ PL Semi Apochromatic 40x/0.65, SL W.D.1.5mm (Optional)• ∞ PL Semi Apochromatic 100x/1.25(Oil), SL W.D.0.2mm (Optional)
Infinity Plan Phase Achromatic (Optional)	<ul style="list-style-type: none">• ∞ PL PH 10X/0.25, W.D.10.2 mm• ∞ PL PH 20X/0.40, W.D.4.8 mm• ∞ PL PH 40X/0.65, W.D. 1.5mm• ∞ PL PH 100X/1.25 Oil, W.D. 0.23mm
Infinity Semi APO Fluorescent	<ul style="list-style-type: none">• FL 4X , FL 10X, FL 20X, FL 40X, FL 60X, FL100X

Epi Fluorescent Attachment:

ACSU7LED2FP (Standard)	3W LED Epi-Fluorescence Attachment, Fly-Eye Lens Illumination, With 2 Filter Position + Bright Field Position, Switch Quickly, With Attachable UV Shield, B, G excitation Filters
ACSU7LED3FP (Optional)	3W LED Epi-Fluorescence Attachment, Fly-Eye Lens Illumination, With 3 Filter Position + Bright Field Position, Switch Quickly, With Attachable UV Shield, B, G, U excitation Filters
ACSU7MER6FP (Optional)	100W Mercury Epi-Fluorescence Attachment, Fly-Eye Lens Illumination, With 5 Filter Position + Bright Field Position, Switch Quickly, With Attachable UV Shield, B, G, U, V excitation Filters

- Optional Filters: Filter U, Filter V, Filter FITC, Filter TRITC, Filter DAPI

Universal Abbe Condenser :

- Centerable condenser holder for vertical adjustment with iris diaphragm & dove-tail mount.
- Inserted/ Sliding Abbe Condenser NA 0.90/1.25 (4X-100X, 05 Positions) with focusable with rack & pinion movement having Aspheric Lens .
- Slot For Phase Contrast Slide And Dark Field Slide.

Mechanical Stage

- Hard core anodized surface / Ergo stage ceramic surface Manual right hand with anti-fungal treatment, Rackless, wire movement & Scratch less Round edge Double Plate Stage, Uniformly horizontal having Dual slide holder for one-hand operation.
- Double Layer Mechanical Stage Full Size 235x150mm, x-y Moving Range 78x54mm with vernier readings accuracy of 0.1 mm.

- The stage is having ball-bearing arrangement to allow smooth travel in transverse directions
- Wear, scratch resistant & Spill resistant, Coaxial stage with right hand low drive control with rotating mechanism and torque adjustment.
- The stage is provided with spring loaded slide holder for exact positioning of specimen/ slide. With convenient sub-stage vertical coaxial adjustment for slide manipulation.

Focusing Control

- Co axial Graduated Coarse and Fine focusing having gear systems for smooth operations.
- Moving Range 28mm, Fine division 0.002mm
- With Safety adjustable height Stop Screw (Upper Limit Stop) to prevent contact between objectives and specimen , Tension/Torque Adjustable

Transmitted Illumination (For Bright Field & Phase Contrast)

- Transmitted Kohler Illumination, Brightness Adjustable, 3W or 10W S-LED, 3200K/6000K color temperature, Built-in Main Body. Halogen Illumination 35W (Optional).
- Brightness control with homogenous illumination.
- Life time more than 50,000 hours.

Electronics

- Kohler Universal Input 100-240 V AC, 50/60 Hz.
- Illumination controller has sleep timer that turns the LED illumination off after a set period.

Standard Accessories : Operating & Service Manual, Dust Cover, Guarantee Card and Thermocole Molded packing & outer corrugated box.

Optional Accessories : Polarizer & Analyzer, Dark Field, **Phase Contrast Unit** Phase Contrast Unit with Objectives & centering Telescope , Green Filter

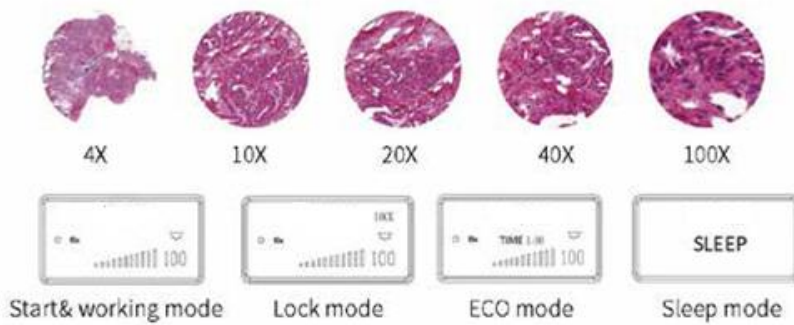
FEATURES :

- **Microscope Use Status Display :** The LCD screen at the front of the microscope can display the usage status of the microscope, including magnification, light intensity, standby status, etc.
- ECO Mode & Auto cut off facility for idle use.
- All optical parts including objectives, eyepieces and prisms have anti-reflective coating with AG treat – Touch points treated to inhibit the growth of bacteria for anti fungal property.
- All metallic parts are corrosion proof, acid proof and strain proof.
- All controls are in a position for comfortable and prolonged use. Precise and ergonomic mechanics.
- Outstanding expandability for all common contrasting techniques, as well as fluorescence.
- **Fly-Eye Lens Design illumination** i.e. 2D array of tiny lenses to spatially transform light from a non uniform to uniform irradiance distribution at an illumination plane.

PRODUCT FEATURES :

INTELLIGENT OPERATING SYSTEM : CODED NOSEPIECE

ACUBL-U7 can memorize the illumination brightness for each objective and automatically adjust the light intensity. This improves work efficiency and reduces visual fatigue.



The Liquid Crystal Display (LCD)

The LCD shows the usage status of the microscope, including magnification, light intensity, sleep mode and more.

- Built in special handle, which is light and good in stability and stable in structure. Its back board is designed with a Cord Wrap, which effectively accommodates excessive long power cords and improves cleanliness of the laboratory. At the same time, it also reduces trip accidents caused by excessive long power cords during transportation



MULTIFUNCTIONAL UNIVERSAL CONDENSER

Universal condenser for bright field, dark field and phase contrast:

The observation methods could be quickly switched by switching the slider. There are two phase contrast sliders universal for 10/20/40/100 objectives also, simple and fast to use.

Automatic Brightness Switching

When the operator changes objectives, the intelligent controller switches the brightness to the last used setting.



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