

T AND EXPORT

恒温显微镜

CONSTANT TEMPERATURE MICROSCOPE

产品说明书
product introduction

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CATALOGUE

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概述 Overview

适用范围:工业、农业、畜牧业、林业、教学等多个领域。

工作环境:环境温度: 10°C-40°C

相对湿度: <80%; 86KPA-106KPA

警告:

1. 仪器应放置在阴凉、干燥的地方。
2. 如果机器出现故障, 请立即关闭电源, 拔出电源插头。

Scope of application: Various fields including industry, agriculture, animal husbandry, forestry, and education.

Working environment: Ambient temperature: 10°C - 40°C;

Relative humidity: < 80%. 86kpa - 106kpa

Warning:

1. The instrument should be placed in a cool and dry place.
2. If the machine malfunctions, please immediately turn off the power supply and remove the power plug.

配置及结构 Configuration and structure



主机+屏幕*1
Mainframe + Screen * 1



载玻片2盒
glass slides*2



盖玻片1盒
cover slides*1



A、B液各1瓶
1 bottle each for
solution A and
solution B



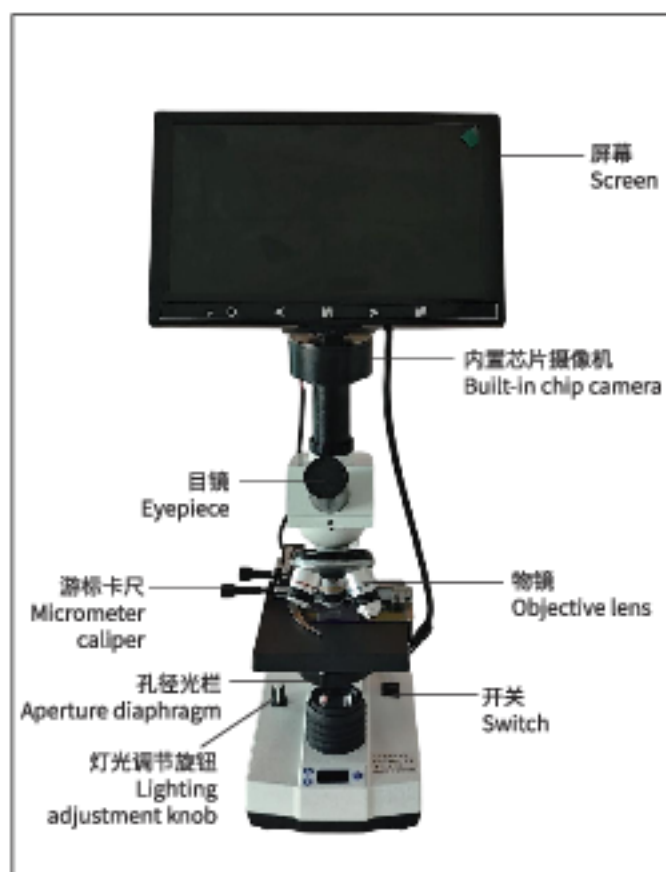
10X目镜*1
10X eyepiece*1



16X目镜*1
16X eyepiece*1



适配器*2
Adapter*2



结构图 Structure



结构图 Structure

放大倍数 magnification

总放大倍数 Total magnification	物镜 Objective lens	10X	40X
		目镜 Eyepiece	
10X平场目镜 10X level field eyepiece		100X	400X
16X平场目镜 16X level field eyepiece		160X	640X

物镜 Objective lens

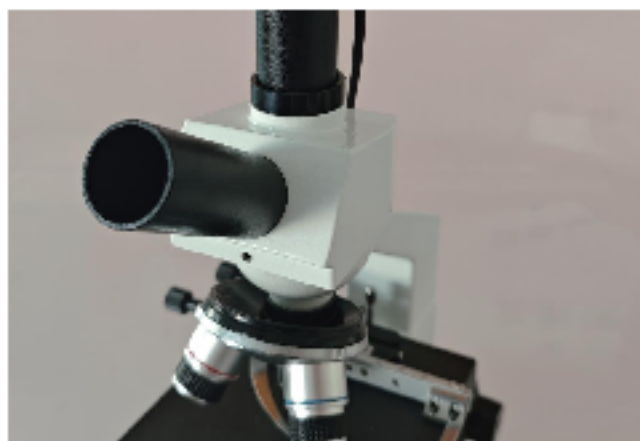
类别 Category	组件 Component	数值孔径 Numerical aperture
消色差物镜 Achromatic objective lens	4X	0.1
	10X	0.25
	40X(弹簧) (spring)	0.65

目镜 Eyepiece

规格 Specification	类别 Category	视场直径(mm) Category	焦距(mm) Focal length (mm)
10X	level field eyepiece	18	24.96
16X	level field eyepiece	10	15.61

操作说明 Operation instruction

装机 Install the machine



第一步: 旋转观察头至正面
Step 1: Rotate the observation head to the front.



第二步: 装上目镜
Step 2: Install the eyepiece.



第三步: 装上屏幕
Step 3: Install the screen.



装机完成图
Installation Completion Diagram.

备注: 机架部分安装完成后, 仔细检查一下各部位是否完全卡好, 有无松动, 安装正确的机架放置在工作台上时应平稳, 不晃动。

Note: After the rack installation is completed, carefully check whether all parts are securely fastened and there is no looseness. When the correctly installed rack is placed on the workbench, it should be stable and not shake.

连接 Connect

仪器准备(连接之前, 先将仪器调到最容易获取图像的状态, 这点至关重要)

Instrument Preparation (Before connecting, first adjust the instrument to the state that is easiest to obtain an image. This is of crucial importance.)

*红色插孔线必须连接一个电源线, 供电使用。

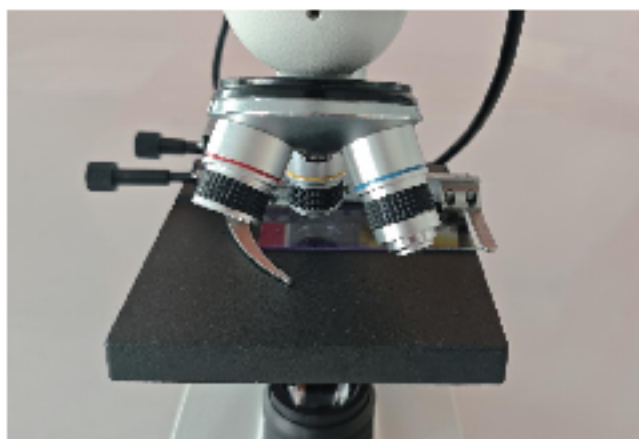
*The red plug cord must be connected to a power cord for power supply purposes.



看细胞等样本插线方式: 可以不插中间加热线
Observation of sample insertion method for cells and others: The intermediate auxiliary wire can be omitted.



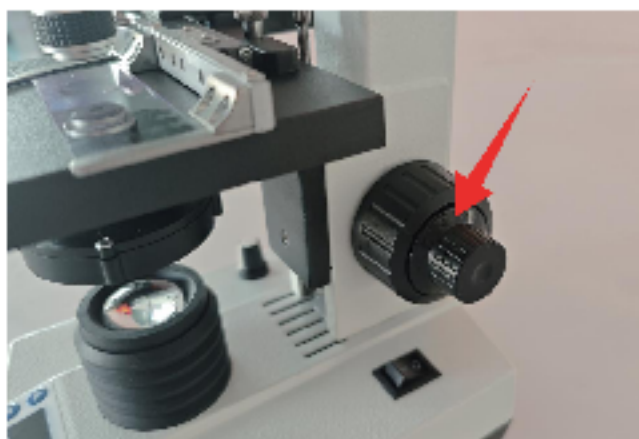
看精子插线方式: 需要插中间加热线
Observation of the insertion method of sperm samples: It is necessary to insert the middle heating wire.



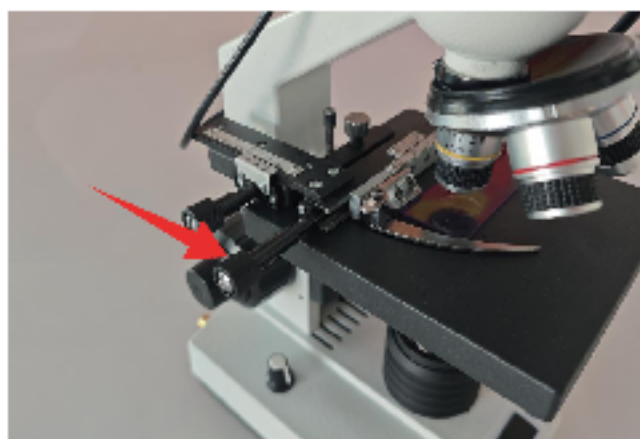
推荐使用黄色镜头观测, 将观察物调至中心。
It is recommended to use a yellow lens for observation and center the object being observed.



调整光圈(载物合下面光圈的推荐位置)。
Adjust the aperture (put the object holder in the recommended position of the aperture below).



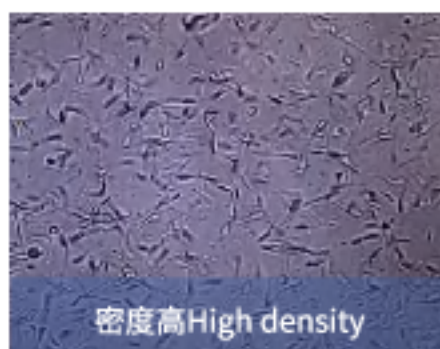
载物台调节:
外侧小齿轮调节黑色平台上升下降慢,
内侧大齿轮调节黑色平台上升下降快。
Adjustment of the worktable:
The outer small gear controls the slow rise and fall of the black platform,
while the inner large gear controls the fast rise and fall of the black platform.



样本调节：
 调节黑色平合卡尺前后和左右移动。
 调节灯光亮或暗,推荐最亮位置。
 Sample adjustment:
 Move the black flat caliper up and down
 and left and right.
 Adjust the brightness of the light. It is
 recommended to set it to the brightest
 position.

显示效果图 Display rendering

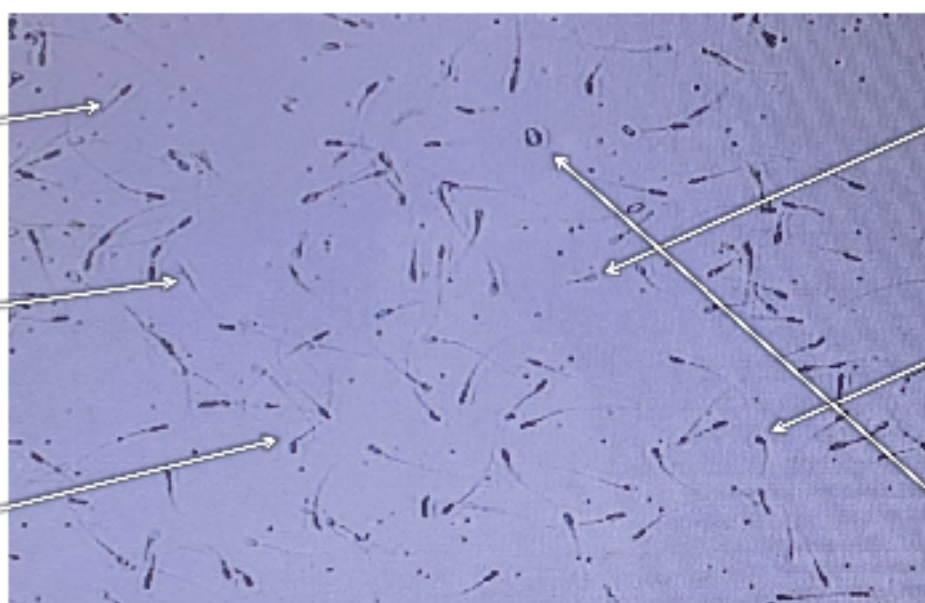
精子标本片 Sperm specimen slide



完整精子
Complete sperm

头部畸形
Head deformity

体部畸形
Body deformity

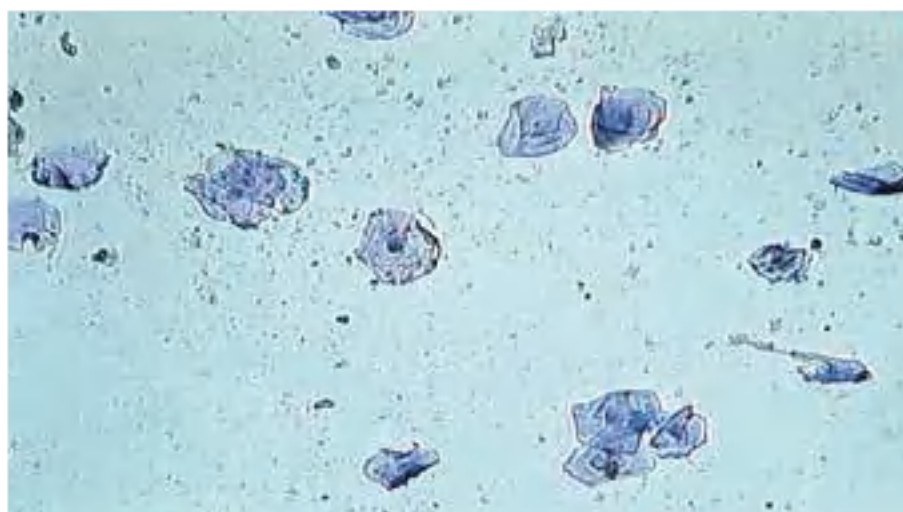


尾部畸形
Tail deformity

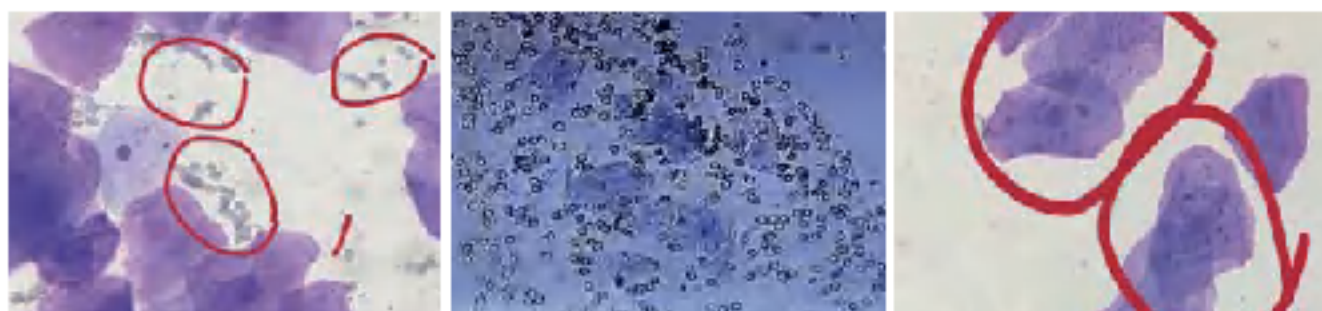
死精
Dead sperm

原生质滴
Protoplasm droplet

排卵标本片 Ovulation specimen



细胞炎症标本片 Cellular inflammation specimen



检查与保养 Check and Mantain

1. 关机:关机前应先 将灯光旋钮旋至最暗,然后关机,以延长灯的使用寿命,
2. 电源检查:
 - ①检查供电电源,若电源电压超出仪器规定的范围时不得开机使用。
 - ②经常检查电源线,若发现破损、断裂现象应立即停止使用。
3. 日常维护和注意点:
 - ①开箱时应小心,防止镜头等附件跌落损坏。
 - ②所有镜头均经装校调试请勿自行拆开。
 - ③物镜转换器和精微动调焦机构,结构紧密,请不要轻易拆装,若仪器发生故障,请返厂修理。
 - ④仪器应保持清洁,经常清除灰尘,滑动部位应定时涂以少量无腐蚀性的润滑油,清洁时应勿必注意不要污染光学玻璃件。
 - ⑤仪器应放置在阴凉、干燥的地方,使用完后须用防尘罩套住。
 - ⑥透镜的清洁:最好用柔软的刷子或纱布清洁灰尘,严重油污及指纹可用干净软布棉布、镜头纸及纱布蘸上无水(纯)酒精(乙醇或甲醇)轻轻地擦去。若从油浸物镜上擦去浸油,应使用干净软棉布、镜头纸及纱布蘸上二甲苯轻轻擦去。纯酒精和二甲苯均易燃烧,在电源开关或关闭时,勿必要当心着火。
 - ⑦油漆或塑料表面的清洁:避免使用任何有机溶剂(如酒精、乙醚、稀释剂等)清洗仪器的油漆或塑料表面。我们建议使用软布,严重污垢可以用软性清洁剂清洁之。塑料表面只能用软布蘸上清水来清洁。

1. Shutting down: Before shutting down, turn the light switch to the darkest position first, then shut down to extend the lifespan of the lamp.

2. Power check

① Check the power supply. If the power voltage exceeds the range specified by the instrument, do not turn it on for use.

② Regularly check the power cord. If any damage or breakage is found, stop using immediately.

3. Daily maintenance and precautions

① When opening the box, be careful to prevent the lens and other accessories from falling and getting damaged.

② All lenses have been calibrated and adjusted. Do not disassemble them yourself.

③ The objective converter and the fine adjustment focusing mechanism have a tight structure. Do not easily disassemble or assemble. If the instrument malfunctions, please send it to the factory for repair.

④ The instrument should be kept clean. Regularly remove dust. The sliding parts should be regularly coated with a small amount of non-corrosive lubricating grease. When cleaning, be careful not to contaminate the optical glass parts.

⑤ The instrument should be placed in a cool and dry place. After use, it must be covered with a dust cover.

⑥ Cleaning of lenses: It is best to clean the dust with a soft brush or cloth. For severe oil stains and fingerprints, use a clean soft cloth, lens paper, and a cloth dipped in anhydrous (pure) alcohol (ethanol or methanol) to gently wipe off. If removing the oil from an oil-immersed objective lens, use a clean soft cotton cloth, lens paper, and a cloth dipped in xylene to gently wipe off. Pure alcohol and xylene are flammable. Be careful of fire when the power switch is on or off.

⑦ Cleaning of paint or plastic surfaces: Avoid using any organic solvents (such as alcohol, ether, thinner, etc.) to clean the paint or plastic surfaces of the instrument. We recommend using a soft cloth. For severely dirty areas, you can use a soft cleaning agent to clean them. The plastic surface can only be cleaned with a soft cloth dipped in clean water.

故障排除表 Troubleshooting Table

机械部分 Machine Parts

症状 Symptom	原因 Reason	对策 Measures
用高倍物镜图像不能聚焦 The image cannot be focused with a high magnification objective lens	玻片放反了 Glass slide is placed upside	翻转玻片 Flip the glass slide
	盖玻片太厚 Cover glass is too thick	用标准厚度的盖玻片(0.17mm) Cover glass with standard thickness (0.17mm)
当物镜从低倍向高倍转换时接触到玻片 When the objective lens switches from low magnification to high magnification, it comes into contact with the glass slide	玻片放反了 Glass slide is placed upside	翻转玻片 Flip the glass slide
	盖玻片太厚 Cover glass is too thick	用标准厚度的盖玻片(0.17mm) Cover glass with standard thickness (0.17mm)
标本移动不流畅 Sample movement is not smooth	玻片夹持器未可靠地紧固 The slide holder is not securely fastened	确定固紧 Confirm the tightness
眼睛过度疲劳 Excessive eye fatigue	照明亮度不合适 Inappropriate lighting brightness	调节灯光亮 Adjust the brightness of the lights

光学部分Optical part

症状 Symptom	原因 Reason	对策 Measures
屏幕上无法显示图像 No image on the Screen	视频线或电源没有接通 The video cable or powersupply is not connected	重新接一下 Reconnect it
光源亮度不够 Insufficient brightness of the light source	没有调灯光调节旋钮 Insufficient brightness of the light source	调节灯光调节旋钮 Adjust the light adjustment knob
	孔径光栏开得太小 The aperture light barreris too small	开大 Turn up
边缘黑暗或视场明暗不均匀 There are dirt on the slide, dark edges, or uneven brightness in the field of view	转换器不在定位位置上(物镜 没有对准孔径光栏) There are dirt on the slide, darkThe converter is not in the positioning position (the objective lens is not aligned with edges, or uneven brightness in the field of view)	转到定位的位置(转动物镜使之与孔径光栏相对应) Turn to the designated position (rotate the objective lens to correspond)
	透镜上有脏物(指物镜、目镜、集光镜) There are dirt on the lens,(referring to the objectiv lens, eyepiece lens, and collector lens)	擦干净 Clean up
视场里有脏物 There is dirt in the field of view	透镜上有脏物(指物镜、目镜、集光镜) There are dirt on the lens,(referring to the objectiv lens, eyepiece lens, and collector lens)	擦干净 Clean up
	玻片上有脏物 There is dirt on the glass slide	擦干净 Clean up
像质很差(分辨率低、对比度差) Poor image quality (low resolution, poor contrast)	标本上没加盖玻片 There is no cover glass on the specimen	擦干净 Clean up
	盖玻片过厚或太薄 Cover glass too thick or too thin	附加盖玻片 Attach a cover slip
	标本上下面反了 The top and bottom of the specimen are reversed	使用标准厚度(0.17mm)的盖玻片 Cover glass with standard thickness (0.17mm)
	物镜上有浸油(特别是40X易有) There is oil immersion on the objective lens(especially for 40X)	翻转回来 Flip back
	透镜上有脏物(指物镜、目镜、集光镜) There are dirt on the lens,(referring to the objectiv lens, eyepiece lens, and collector lens)	擦干净 Clean up
	孔径光栏开得过小 The aperture light barreris too small	适当开大 Turn up
图象某一侧发暗 The image on one side is too dark	标本处于浮动状 The specimen is in a floating state	可靠地加固 Reliably reinforce

症状 Symptom	原因 Reason	对策 Measures
图象某一侧发暗 The image on one side is too dark	转换器不在定位处 The converter is not in its designated position	转动、使之到位 Turn it and position it properly
调焦时图象移动 Image movement during focusing	标本浮在载物台表面 The specimen is floating on the surface of the stage	应稳固地安放 Should be firmly placed
	转换器不在定位处 The converter is not in its designated position	转动,使之到位 Turn it and position it properly
图象颜色不正 The image color is incorrect	未用滤光片 Without using a filter	使用滤光片 Use a filter

