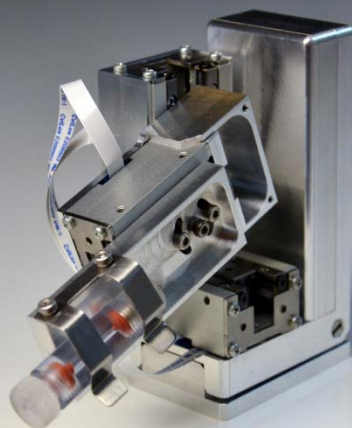


SENSAPEX 世界最小最稳定的微操纵仪

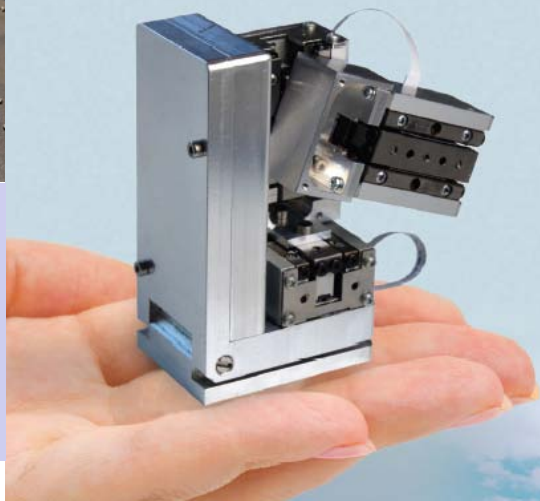
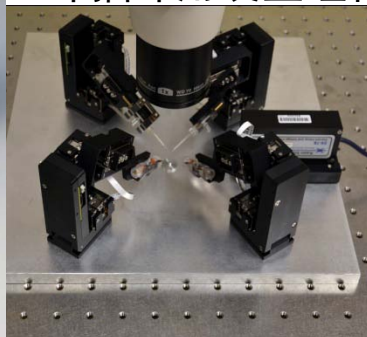
Tackle the experimental limitations with the smallest and most stable micromanipulator for electrophysiology!



- 小尺寸 – 最大的活动范围
- 最新的高性能压电技术
- 精确稳定的电极定位
- 即插即用装置组合



微操纵仪带左右手皆可操纵的控制器



产品特点

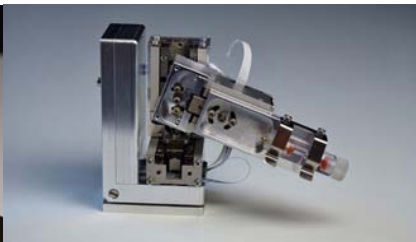
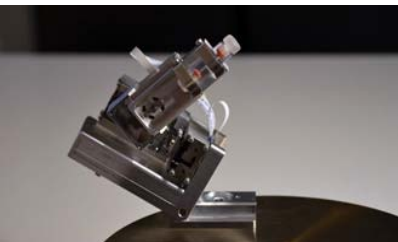
- 符合人体工学的操控部件;
- 同时可操作多个微操纵仪;
- 亚微米分辨率的封闭环控制;
- 流畅的操作以及清晰的步骤;
- 简单的电极预先定位和变化;
- 电池供电控制, 无噪音。

控制部件结合可后翻, 编程记忆位置装置使电极更换更加方便。 电池供电的操控部件由坚固的可选装的把手和信息显示组成。 通过按键可以简单的调节速度以及操作, 记忆的定位。 也可为用户定制需要的操控部件。

产品规格

运动范围: 22x22x22mm³ 电池供电控制
 单元最小步长: 50 nm 多机械臂支持
 最大负载: 50 g 速度可调
 驱动器轴角: 0-45 度 可编程记忆位置
 电极转动角度: 0-45 度 头-转动适配器

**电子生理学家设计, 最新高性能压电技术
 精确稳定的电极定位, 可用性突出的产品!**





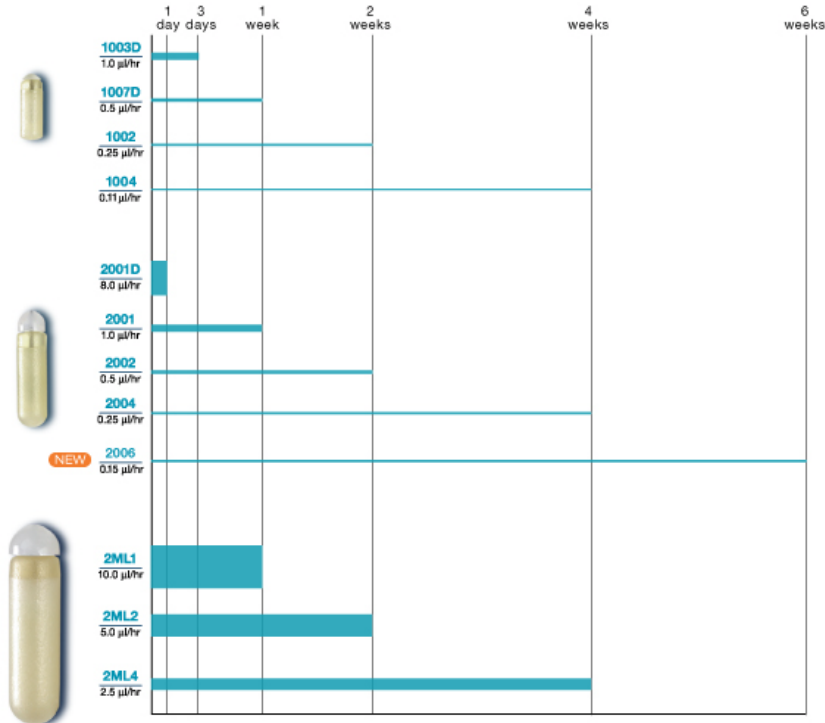
ALZET® 植入式胶囊渗透压泵

持续長時間定量給药的好帮手



• Alzet Osmotic Pumps 是体积只有胶囊大小的渗透压泵，可植入实验动物皮下或腹腔内，直接或通过导管以 $\mu\text{l}/\text{小时}$ 的速度持续准确地送出测试药剂，最长可达六个星期。

• Alzet Osmotic Pumps符合 USP 医疗用塑胶材料生物相容性标准，适合植入实验动物体内，针对特定部位给药，或脏器如肾脏及脾脏及其它脏器和创伤处。



Benefits in Neuroscience Research

- The only implantable pump available for use in mice & young rats.
- Direct delivery of agents across the blood-brain barrier.
- Continuous and controlled delivery of neuroactive compounds.
- Ideal for studies involving behavioral testing — no animal handling required during infusion.
- Easily attached to a catheter for delivery to the brain, spinal cord, peripheral nerve, tumor or wound.
- Over 30 years of published neuroscience — well-established methods for many animal models.
- Improved bioavailability of short half-life peptides and proteins.
- Convenient & cost-effective for chronic treatment in lab animals.
- Reproducible, consistent results.
- Automatic nighttime and weekend dosing.



神经药物定点缓释脑部装置一

Alzet 大脑灌注装置 Brain Infusion Kits



Wound Closure Systems
 Streamline your pump implantation surgeries and save valuable time.

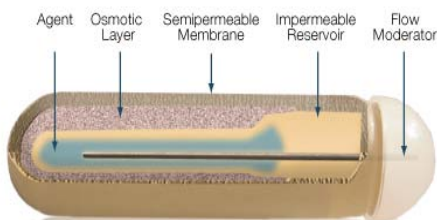


Learn More

Alzet渗透压泵结合其专门用于药物定点缓释的脑部注射Alzet® Brain Infusion Kits，您能突破血脑屏障的限制对药物进行脑部的定点定量缓释注射，在神经生物学领域的研究中发挥了重要的作用，已经在中枢神经系统的药物及机理研究中发表了数千篇文献：www.alzet.com/bibliography/neuroscience.php

植入式渗透压泵的结构及工作原理：

植入式渗透压泵的外壁由半通透膜的物质构成的一个，在内壁中含有渗透压的物质层，在中间有一个密闭小室，当渗透压泵埋在动物皮下时，水分透过半通透膜进入渗透压物质层，产生压力，将小室内的药挤出，即达到给药的目的。



ALZET Neuroscience Products

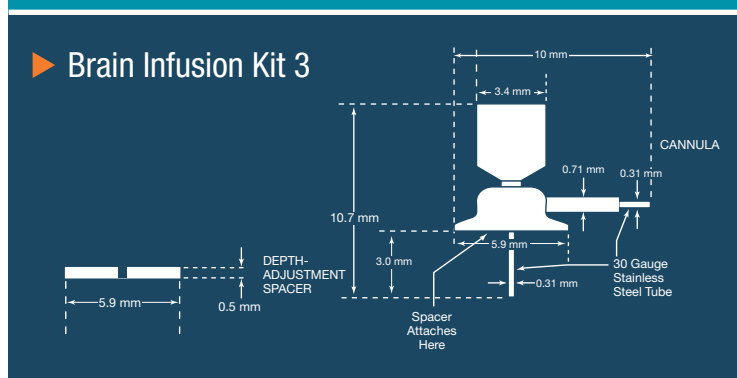
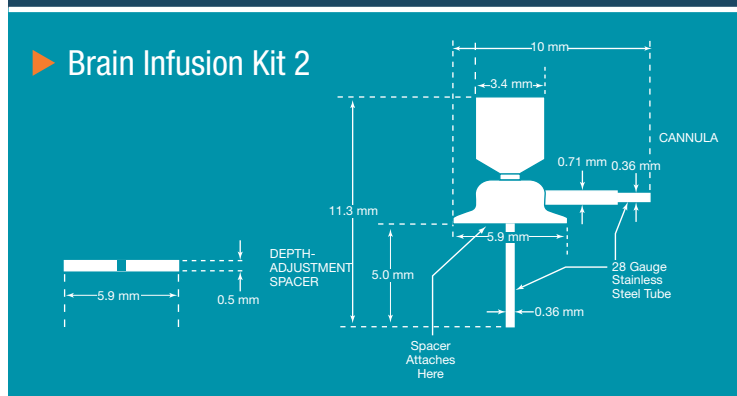
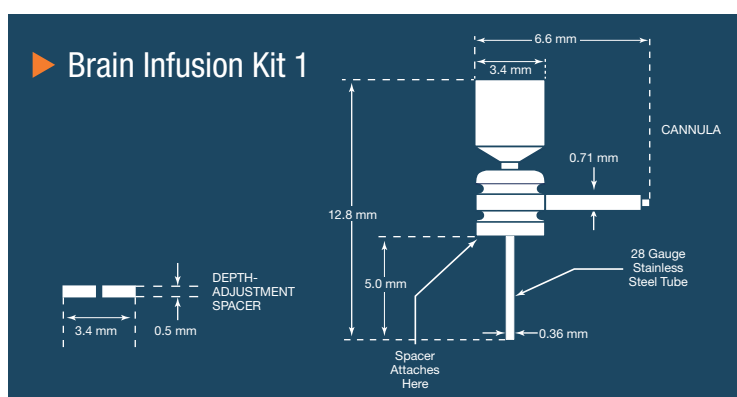
Simplifying neuroscience research with ALZET® Osmotic Pumps.

For over 30 years, neuroscientists have been creatively incorporating ALZET pumps into their research methods. The earliest studies into opioid dependence and neuronal plasticity are joined by recent, cutting edge work using ALZET pumps to deliver siRNA, neuroprotectants and new psychoactive drugs. Gathered here is a selection of infusion tools to help you achieve reliable and reproducible results. We also provide excellent technical support, a video CD demonstrating the surgical implantation of ALZET pumps, and custom searches of our comprehensive database of references on the use of ALZET pumps in neuroscience research.



Benefits of ALZET Pumps in Neuroscience Research

- The only implantable pump available for use in mice and young rats.
- Direct delivery of agents across the blood-brain barrier.
- Continuous and controlled delivery of neuroactive compounds.
- Ideal for studies involving behavioral testing — no animal handling required during infusion.
- Easily attached to a catheter for delivery to the brain, spinal cord, peripheral nerve, tumor or wound.
- Over 30 years of published neuroscience — well-established methods for many animal models.
- Improved bioavailability of short half-life peptides and proteins.
- Convenient & cost-effective for chronic treatment in lab animals.
- Reproducible, consistent results.
- Automatic nighttime and weekend dosing.



Brain Infusion Kits

Many agents do not cross the blood-brain barrier in sufficient quantities to evaluate their effects on the brain. Cerebral injection is one local delivery method, but it can be challenging to deliver an effective dose in a physiologically-compatible volume. In addition, the agent may not remain in the target location long enough to elicit its effects. For many compounds, local infusion directly into the brain is the only efficient way to generate reliable data.

DURECT now offers three ALZET Brain Infusion Kits in several lengths and gauges. All Kits are designed specifically for use with ALZET pumps for targeted delivery to the central nervous system. They can be used in two ways:

1. Infusion into the cerebral ventricles, exposing a wide variety of brain regions to the infusate via the cerebrospinal fluid which bathes the brain.

2. Direct microperfusion of discrete brain structures, resulting in localized distribution of infusate in the target tissue.

Each ALZET Brain Infusion Kit includes materials for 10 brain infusions:

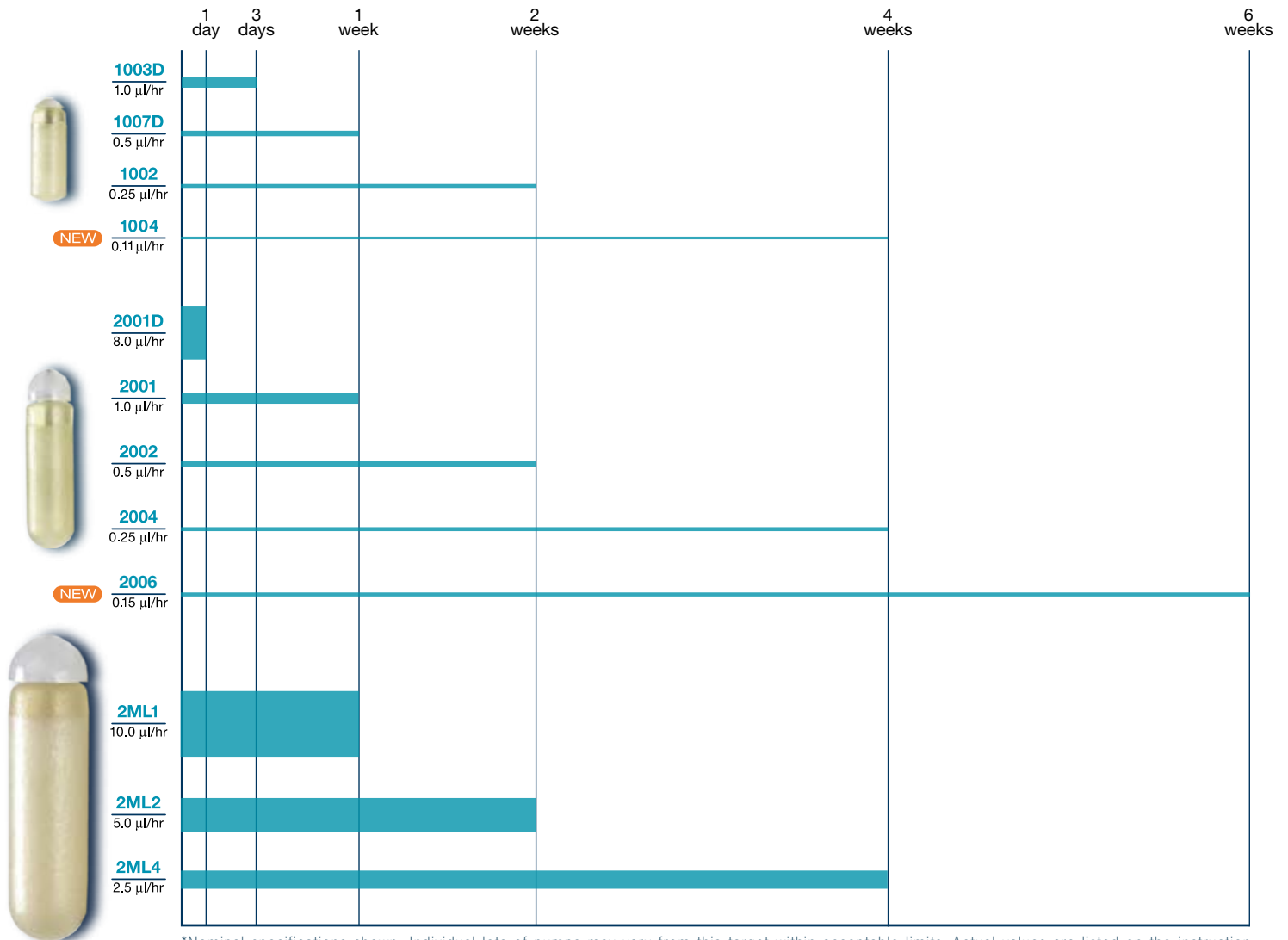
- 10 Brain Infusion Cannulae
- 10 Vinyl Catheter Tubes
- 40 Depth-Adjustment Spacers
- 1 Instruction Sheet

Feature of Brain Kits

- Compatible with all ALZET pumps models. (Pumps and kits are sold separately.)
- Target lateral ventricles: Without modification, Brain Kits 1 & 2 will penetrate 5 mm below the surface of the skull. When affixed to the skull in the stereotaxically correct location, this will put the tip of the cannula in the region of the cerebral ventricles of a 250-300 g rat. Brain Kit 3 will penetrate 3 mm below the skull surface, which is appropriate for targeting the lateral ventricles in an adult mouse.
- Easily customized to target different brain regions or adjust for differences in animal size. Uniquely designed depth adjustment spacers allow the depth of the cannula tip within the brain to be adjusted in 0.5 mm increments. Note that the cannula can easily be trimmed to target more superficial structures.
- Design minimizes local trauma: Fine gauge stainless steel cannula minimizes trauma to the brain during cannula placement. (Brain Kits 1 & 2 are 28 gauge. Brain Kit 3 is 30 gauge.)
- All components provided sterile.
- Biocompatible: All materials in the Kits meet U.S. Pharmacopoeia (USP) Class VI standards for the biocompatibility of medical plastics.

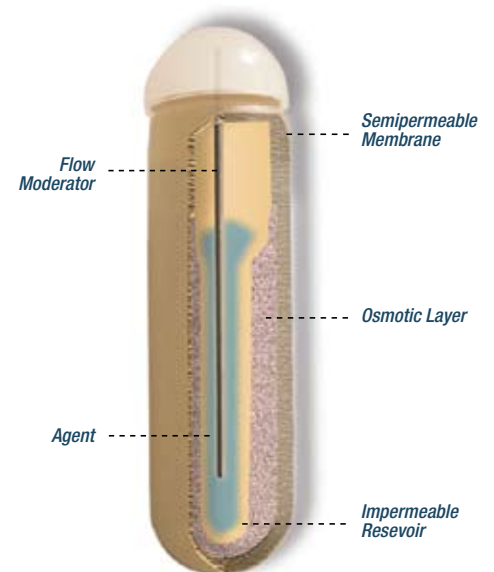
Brain Infusion Cannula	Brain Kit 1	Brain Kit 2	Brain Kit 3
Item No.	0004760	0008663	0008851
Material (tube)	Stainless Steel		
Gauge (tube)	28 Gauge	28 Gauge	30 Gauge
Dimensions (steel tube)	ID=0.18mm OD=0.36mm	ID=0.18mm OD=0.36mm	ID=0.16mm OD=0.31mm
Material (elbow stop, flange)	Polycarbonate		
Volume Inside Tube	0.32	0.32	0.23
Height Adjustment Spacer			
Material	Polycarbonate		
Catheter Tubing			
Material	Polyvinylchloride (medical grade)		
Length	15 cm (approx.)		
Inside diameter	0.69mm (+/-0.08)		
Outside diameter	1.14mm (+/-0.08)		
Volume per 15cm	56 µl (3.7 µl/cm)		

Rates and Durations*



*Nominal specifications shown. Individual lots of pumps may vary from this target within acceptable limits. Actual values are listed on the instruction sheet included with the pumps.

► **ALZET pumps** operate because of an osmotic pressure difference between a compartment within the pump, called the salt sleeve, and the tissue environment in which the pump is implanted. The high osmolality of the salt sleeve causes water to enter the pump through the semipermeable membrane, which covers the outer surface of the pump. As the water enters the salt sleeve, it compresses the flexible reservoir, displacing the test solution from the pump at a controlled, predetermined rate.



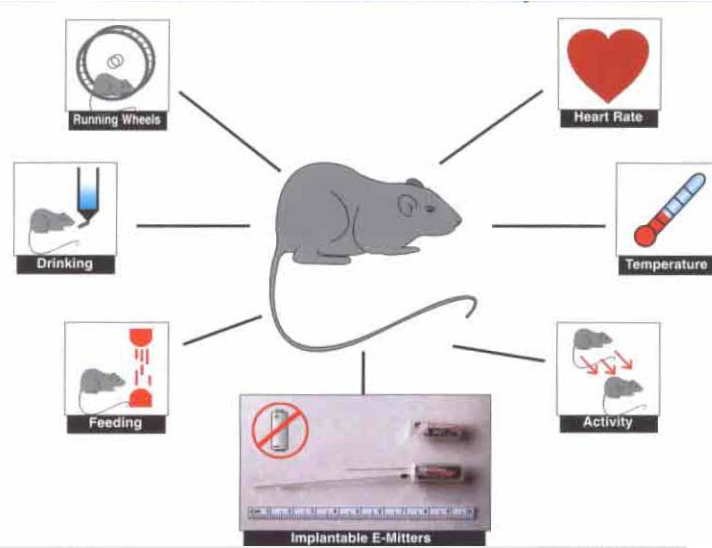


MINI MITTER



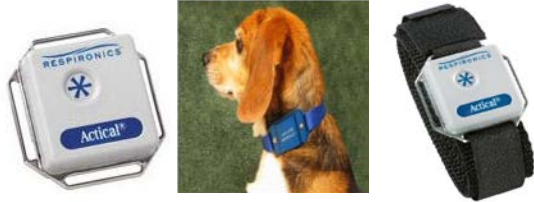
VitalView 植入式生理信号无线遥测系统

用于长时间测量清醒无束缚的鼠兔猫狗猴鱼等动物的心率，体温和活动量等生理参数。使用此系统可以保证动物在笼内自由活动，不需要麻醉或束缚，这样测量到的生理信号更能反映自然状态下的动物生理状况，满足GLP实验室要求。系统由植入体(E-Mitter)、接收数据转换器(Receiver)、电缆和记录分析计算机(VitalView)构成。1-厘米大小的植入体E-Mitter集成了传感器、放大器和无线信号发射器，根据测量信号不同有多种规格。植入式E-Mitter转发器不需电池，由接收数据转换器(Receiver)输出电力。操作者将植入体埋入动物皮下，生理信号被植入体采集到并转换成相应的电信号后用无线电发射出来，由饲养笼下方的接收器接收到并传递给数据转换器，完成数据转换后送入中央处理器进行数据处理。系统最多可同时连接32个接收器，完成大规模的试验。



Actical 非侵入性行为活动监测系统

Actical已经成功地应用在各种各样的其他野生和家养动物，非人灵长类动物和狗。是唯一的防水活动监测系统，定量活动监测。它计算和记录能量消耗(AEE),代谢(METs)等,它也允许你容易地确定时间点,当每个活动发生在整个一天。



Actiwatch

The Actiwatch product line is designed to help you gain insight into a subject's long-term sleep/wake schedule, activity of daily living patterns, and subjective sense of parameters, such as pain, in response to drug/behavioral therapies.

CLICK FOR MORE INFORMATION

Actiwatch 人的活动量及睡眠研究。

Actiware CT 软件: 活动和环境光线数据收集、储存、管理及睡眠分析软件。

VitalSense®集成生理监测系统

遥感勘测人的皮肤&体内温度,呼吸心率



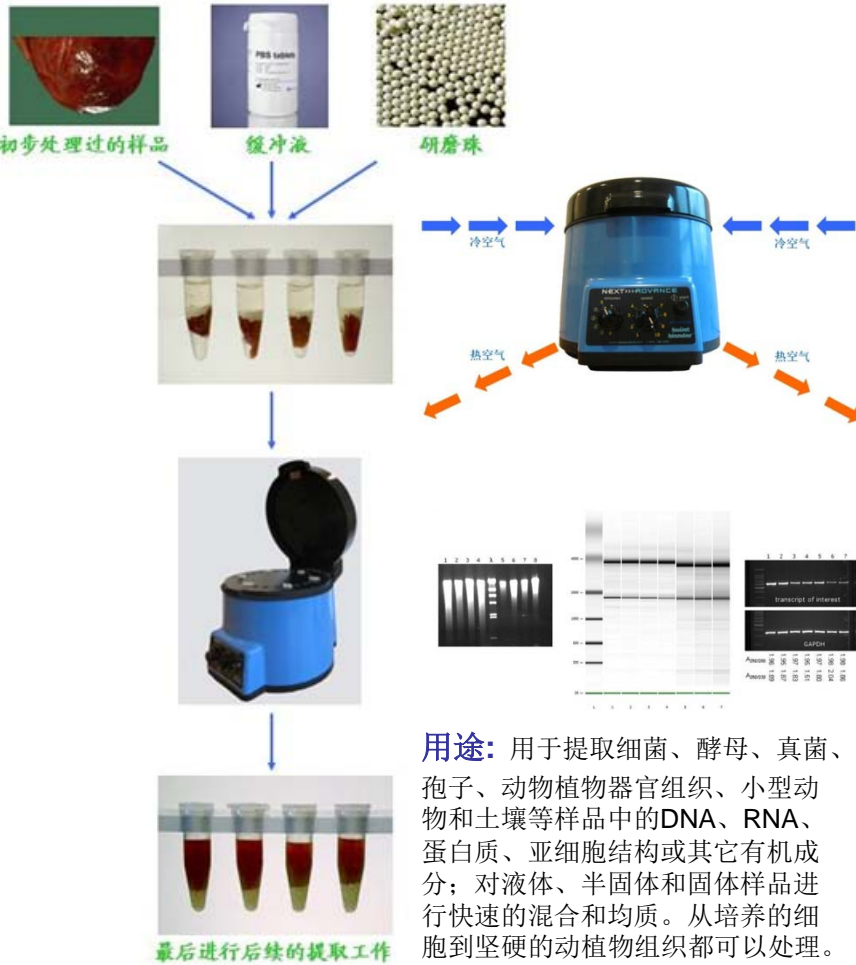
Actiwatch®Score

情绪, 饥饿, 疼痛, 疲劳研究



多功能24通道研磨珠均质器-BULLET BLENDER™ Homogenizer

研磨珠均质器Bullet Blender是一款新颖、快速、高通量、高稳定性的组织细胞破碎仪。使用专利的试管击打技术，转头以每分钟几千次的频率击打试管，使样品和研磨珠在试管内产生剧烈的振动，高耐磨性研磨珠对细胞或组织样品进行彻底的破碎和均质。



产品优点:

- 安静和容易操作
- 不锈钢系统
- 可拆卸和调整的搅拌器
- 可调整的均质时间
- 固定的或可变的均质速度
- 渐进式均质，卓越的细胞保护
- 全开启式门，易于清洗

技术参数

- *高通量样品处理能力，可容纳•24个1.5mL或2mL微量离心管；9个50mL离心管。
- *具有强制风冷功能；
- *非接触式样品处理方式；
- *转头速度：从低速漩涡混合到高速剧烈振动10档可选；
- *耗材开放，不需要特殊样品管；具有24V直流马达，产热量小，除转头外，无其它活动部件，保证使用寿命更长；
- 尺寸：20cm (直径)×19cm(高)；
- 运行环境：放置于4°C到60°C的环境中运行；
- *提供各种尺寸和材质的研磨珠，满足处理不同样品的需要，配有添加研磨珠的勺和8种不同规格的研磨珠；
- 对于特殊样品，提供有针对性的实验方案

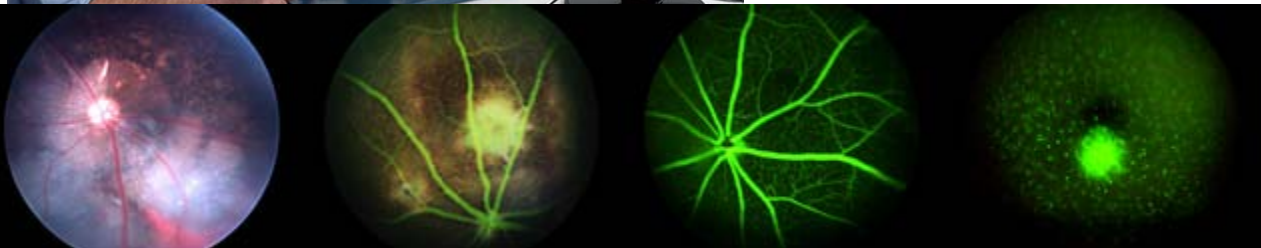
用途: 用于提取细菌、酵母、真菌、孢子、动物植物器官组织、小型动物和土壤等样品中的DNA、RNA、蛋白质、亚细胞结构或其它有机成分；对液体、半固体和固体样品进行快速的混合和均质。从培养的细胞到坚硬的动植物组织都可以处理。

- Bullet Blender, 1.5ml离心管, 处理24个样品, 样品最大为0.3克, 不带风冷
- Bullet Blender Blue, 1.5ml离心管, 处理24个样品, 样品为0.3克, 带风冷
- Bullet Blender Blue 5, 5ml离心管, 处理12个样品, 样品为1.0克, 带风冷
- Bullet Blender Blue 50, 50ml离心管, 处理9个样品, 样品为3.0克, 带风冷

Micron III 大小鼠专用视网膜影像系统



Phoenix Research Labs公司的Micron III为全世界唯一针对小动物所设计的视网膜影像系统。2010年ARVO大会上，Micron III被公认为小动物视网膜成像的新标准，来自全球的眼科学及神经科学研究者都给予高度评价。目前除了小动物视网膜影像系统之外，更发展出眼前段裂隙灯影像、视网膜电位图、大动物视网膜影像等系统，提供最全面的眼科学研究

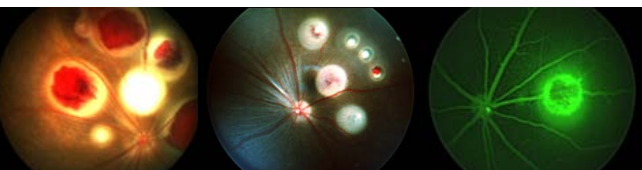
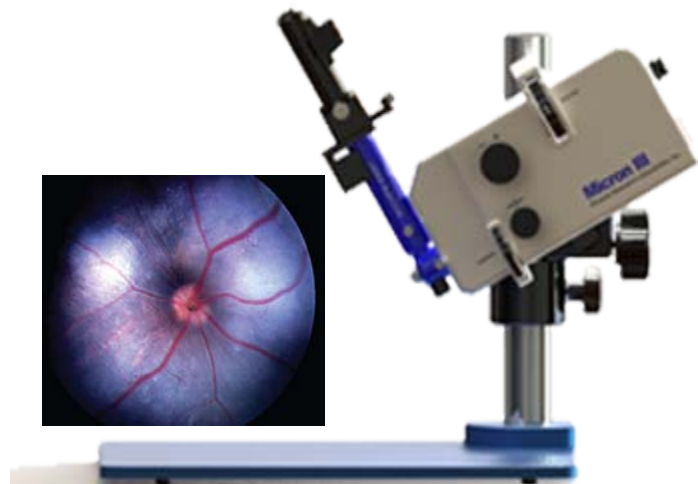


产品优点

- 有别於一般眼底镜，专为大/小鼠设计之视网膜影像撷取系统。
- 使用方式和萤光显微镜类似，可观察明视野和萤光(Ex.CFP,GFP,mCherry等)影像。
- 兼具单张图像拍摄及数位影像录影功能。
- 非常适合用在萤光血管造影，甚至可看到微血管内血球的动态流动。
- 可即时切换萤光滤片及焦距调整。
- 解析度可达4 μ m，视野范围(FOV)可达60度(2mm)。

应用范围:

- 萤光血管造影(Fluorescein Angiography)、
- 糖尿病视网膜病变(Diabetic Retinopathy)、
- 视网膜母细胞瘤(Retinoblastoma)、
- 视网膜黄斑衰退症(AMD)、
- 早产儿视网膜病变(ROP)、
- 脉络膜新生血管(Choroidal Neovascularization)、
- 视网膜色素变性(Retinitis Pigmentosa)等。



动物脑内酵素瞬间灭活系统 Muromachi Microwave Fixation system

微波灭活系统通过一个专门的发射器将产生的微波能量传递给大鼠或者小鼠的脑部,使动物大脑内的化学物质快速“固定”,脑内的酶等化学物质维持不变,使得研究在活体条件下进行。

- 系统能精确测量 cAMP, cGMP, GABA, Acetylcholine, choline, DOPA, 5HTP, endorphin, prostaglandins, and catecholines 以及它们的代谢物。
- “固定”大脑的速度与受试动物的身体尺寸有关,小鼠大约一秒钟,大鼠则需要更长一点时间。
- 两个型号可选: 5千瓦,MMW-05 和10千瓦TMW-4012C (10KW)

工作原理:

1. 大功率微波加热的方式使得神经组织内的酶 (ENZYME) 瞬间去活性-灭活,以避免死后变化(post-mortem changes) 持续进展。
2. 此法比用冷冻固定法要来得快速: 冷冻法需要10-90秒做深入冷冻去活性,这期间,深部组织的死后变化 已经在进行,因脑表面的热传导转差。微波法可在更短的时间内使组织完全去活性。

产品特性:

1. 所有控制均位于前触摸屏板上;
2. 数字化设置,使得电源级别设置容易,重复性好;
3. 稳压控制: 很好的控制客户处电压不稳,电压波动性得到控制;
4. 采用风冷装置,无需水冷,升降温时间快;
5. 整体重量轻,仅为103公斤。

应用范围,用以测定:

- * Acetylcholine 乙酰胆碱
- * Choline 胆碱
- * Cyclic AMP 环腺苷酸
- * Cyclic GMP 环林鸟苷
- * GABA 伽马氨基丁酸
- * DOPA 多巴 (二羟基苯丙氨酸)
- * 5-HTP 5-羟色胺酸
- * Serotonin 血清素
- * Endorphin 内啡肽
- * Prostaglandin 前列腺素
- * Catecholamines & their metabolites 儿茶酚胺及代谢物
- * Phosphorylated Proteins 磷酸化蛋白质



微波灭活固化可以达到下列标准:

1. 可瞬间将温度升至75-90摄氏度,使脑部快速固定。
2. 大功率微波能量可有效集中在动物的头部。
3. 各种动物都可以达到相同的结果。
4. 对操作人员具备严格的保护,设备相当安全。
5. CE认证,国际规定: 家用微波设备微波泄漏不得超过5毫瓦/立方厘米,此设备安全标准远远高于国际规定,微波泄漏不超过1毫瓦/立方厘米。

Fig.1 Effect of microwave irradiation on ChAc and ChE activities in rat brain.

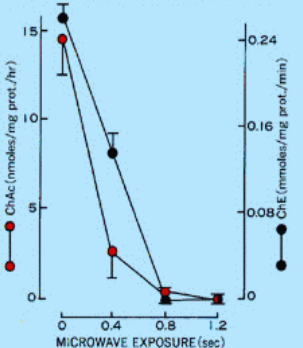


Fig.2 Effect of microwave irradiation on T-OH and MAO activities in rat brain.

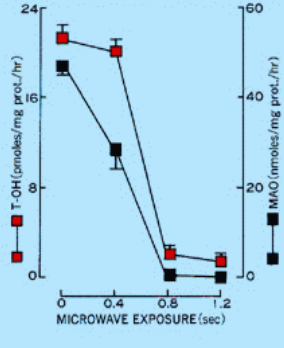
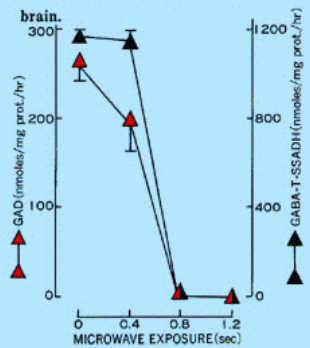


Fig.3 Effect of microwave irradiation on GAD and GABA-T-SSADH activities in rat brain.



Muromachi

Muromachi system



Tail Flick Analgesy Meter
MK-330B



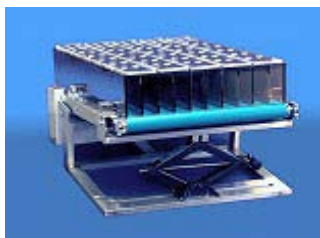
Hot Plate Analgesia Meter
MK-350D



Pressure Analgesy Meter
MK-201D



Rota-Rod Treadmill
for Rats & Mice
MK-670



Rota-Rod Treadmill
for Rats & Mice
MK-680



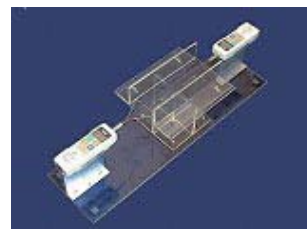
Saito's Grip Strength Meter
for Mice MK-380M



Bone Strength Tester for
Rodents, TK-252C



Communication Box
CBX-303



OECD method based Grip
Strength meter
MK-380CMR



Rat Vaginal Impedance Checker
MK-11



Automated Milker For Rats &
Mice, WAT-2006



Step-Through Test System
MST-05