



Technical resources

Multi channel tissue grinder

Model: ZZYM

<https://www.tencanballmills.com/en/products/research-equipment/multi-channel-tissue-grinder.html>

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Model: ZZYM

Multi-channel tissue grinder for fast, high-throughput DNA/RNA/protein extraction from soil, plants, animal tissues, bacteria, yeast, fungi, and more.

Technical specifications

Output particle size	5μm
Number of grinding platforms	>2
Grinding mode	Wet / dry / low temperature grinding

These specifications describe the series. Confirm the selected model, power supply and configuration before ordering.



The multi-channel tissue grinder is a special, fast, high-efficiency, multi-tube grinding system. Supports the extraction and purification of original DNA, RNA and protein from a variety of samples including soil, plant and animal tissues/organs, bacteria, yeast, fungi, spores, paleontological specimens, etc. Other substances can also be ground. Supports dry grinding, wet grinding and mixed grinding and homogenization. This product can support 24 different samples for grinding processing, improve grinding efficiency and quality, reduce labor costs, and reduce manual operation errors.

粉碎系列

产品介绍

多通道组织研磨仪是一种特殊的、快速的、高效率的、多试管的研磨系统。支持对包括土壤、植物和动物的组织/器官、细菌、酵母、真菌、孢子、古生物标本等多种样本的原始DNA、RNA和蛋白质进行提取和纯化。也可以对其他物质进行研磨。支持干磨、湿磨和混合研磨及均质化处理。本产品可支持24个不同样品进行研磨处理，提高研磨效率和质量，降低人力成本，减少人工操作误差

粉碎系列

产品特点

- 1.可以直接将离心管置于适配器内，也可以对适配器进行预冷冻
- 2.研磨过程全封闭，样品之间独立运动，避免交叉感染
- 3.内置程序控制器，参数设置简单方便
- 4.采用静音设计，减少对周围环境的干扰
- 5.配备锁，具备开盖停转保护功能，性高
- 6.垂直振荡，研磨更充分，相同样品多次研磨一致性好

粉碎系列

产品原理

多通道组织研磨仪采用高频垂直振荡的方式，选择不同的研磨珠对不同性状的样品在离心管内直接对样品进行研磨，研磨管内样品与研磨球相互碰撞，其产生的研磨剪切力和撞击力使组织完全破碎，从而分离提取原始DNA、RNA。

粉碎系列

产品用途

- 1.适用于各种植物组织如根、茎、叶、花、果等样品的研磨破碎
- 2.适用于各种动物组织包括如大脑、心脏、肺、胃、肝脏、骨骼、毛发等样品的研磨破碎
- 3.适用于真菌、细菌如酵母菌、大肠杆菌等样品的研磨破碎
- 4.适用于食品、药品的研磨破碎
- 5.适用于易挥发性样品如煤炭、油页岩、蜡制品等样品的研磨破碎
- 6.适用于塑料、聚合物、包括PE、PS、纺织品、树脂等



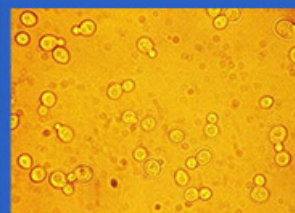
塑料



植物



树脂



酵母菌

1. Suitable for grinding and crushing various plant tissues such as roots, stems, leaves, flowers, fruits and other samples
2. Suitable for grinding and crushing various animal tissues including brain, heart, lung, stomach, liver, bone, hair and other samples
3. Suitable for grinding and crushing samples of fungi and bacteria such as yeast and E. coli.
4. Suitable for grinding and crushing food and medicines
5. Suitable for grinding and crushing volatile samples such as coal, oil shale, wax products, etc.
6. Suitable for plastics, polymers, including PE, PS, textiles, resins, etc.

Technical parameters

model	ZZYM-24
LCD display	Microcomputer controls large-screen LCD to display working status

Adapter handling sample volume	24 × (0.2 - 0.5 ML) / 16 × 2 ML / 8 × (7 - 10) ML / 8 × 15 ML / 4 × 25 ML / 2 × 50 ML
Standard configuration	Two adapters available
Homogenization speed	10 - 70 Hz/sec
Shockproof principle	German technology schleifen-1 working method
Adapter material	PTFE or alloy steel
Grinding method	Wet grinding, dry grinding, low temperature grinding are all available
Large feed size	No requirement, adjust according to adapter
Final discharge particle size	5μm
Number of grinding platforms	(Number of acceptable grinding jars) >2
Fastening device with automatic centering	yes
Safety lock at work	Full protection
Grinding Kit Materials	Hard steel, polytetrafluoroethylene (Teflon)
power supply	Two-phase 220V/50HZ
working hours	0 seconds to 99 minutes, user can set by himself;
Grinding ball diameter	0.1 - 30 mm
Grinding ball material	Alloy steel, chromium steel, zirconia, tungsten carbide, quartz sand;
accelerate	Reach maximum speed in 2 seconds
slow down	Reach low speed in 2 seconds
Noise level	<50 dB
Overall dimensions	280×400×530
weight	40 KG

The multi-channel tissue grinder uses high-frequency vertical oscillation to select different grinding beads to grind samples with different properties directly in the centrifuge tube. The samples and grinding balls in the grinding tube collide with each other. The resulting grinding shear force and impact force completely break the tissue, thereby separating and extracting the original DNA and RNA.

1. You can place the centrifuge tube directly into the adapter, or you can pre-freeze the adapter.
2. The grinding process is fully enclosed, and samples move independently to avoid cross-infection.

3. Built-in program controller, parameter setting is simple and convenient
4. Adopt silent design to reduce interference to the surrounding environment
5. Equipped with a lock, which has the function of stopping when the cover is opened and has high safety.
6. Vertical oscillation, more complete grinding, and good consistency in grinding the same sample multiple times.

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Before operation, review the selected model's instructions and the material requirements.