碧云天网站 微信公众号

碧云天生物技术/Beyotime Biotechnology
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Beyozol (总RNA抽提试剂)

产品编号	产品名称	包装
R0011	Beyozol (总RNA抽提试剂)	100ml

产品简介:

- 碧云天生产的Beyozol是一种用于细胞或组织总RNA抽提的试剂。本产品采用和Invitrogen公司的TRIzol完全相似的原理和方法，抽提的方法和步骤完全相同。
- Beyozol的颜色和TRIzol相同，加入氯仿后上层呈无色，下层呈紫红色，便于吸取上层水相。
- Beyozol对动植物细胞或组织及细菌的总RNA抽提均适用。
- Beyozol可以抽提长达15 kb的RNA，也可以抽提microRNA等小RNA。抽提小RNA时宜-70°C沉淀过夜。
- Beyozol抽提所得RNA无DNA和蛋白污染。一般所得RNA溶于DEPC水后的A260/280值为1.8-2.0。
- 裂解细胞或和组织共匀浆时，Beyozol可以保持样品中RNA的完整性，即可以有效抑制RNA的降解。
- 每一百万细胞用Beyozol抽提可得5-15μg RNA；每毫克组织用Beyozol抽提可得1-10μg RNA。产量因细胞和组织不同而异。
- 抽提两个样品约需一小时。
- Beyozol抽提所得RNA可直接用于Northern，点杂交，纯化mRNA，体外翻译，RNase protection assay，cDNA克隆，以及RT-PCR；也可以用于基因表达芯片分析、高通量测序(deep sequencing)等对RNA质量要求较高的情况。
- 碧云天生产的Beyozol(R0011)和Trizol(R0016)的成分有细微差别，实际抽提效果无任何显著差异。
- 每100ml Beyozol可以抽提100个六孔板中的样品或100个50-80mg的组织样品。

包装清单:

产品编号	产品名称	包装
R0011	Beyozol	100ml
—	说明书	1份

保存条件:

4°C保存，一年有效。

注意事项:

- 需自备氯仿，异丙醇，DEPC，75%乙醇(DEPC水配制)，和DEPC水。DEPC(ST036)，DEPC水(R0021)可向碧云天订购。
- 所有离心管，枪头及相关溶液都必须无RNA酶污染。耐高温器物可150°C烘烤4小时以去除RNA酶，其它器物去除RNA酶可考虑用0.01%的DEPC水浸泡过夜，然后灭菌，烘干。溶液需用DEPC水配制。加0.01%(体积比) diethylpyrocarbonate(DEPC)至重蒸水或Milli-Q级水中，处理过夜，灭菌即成DEPC水。
- 使用冻存的细胞或组织抽提总RNA的效果通常比新鲜的细胞或组织差一些。因为在细胞或组织冻融过程中一些细胞或组织内的RNase会被释放出来并剪切样品。如果不能及时抽提RNA，推荐先加入适量Beyozol，并裂解样品后冻存。
- 必须戴一次性手套操作，且尽量不要对着RNA样品呼气或说话，以防RNA酶污染。建议戴一次性口罩操作。
- Beyozol含有毒物质苯酚，避免接触皮肤或吸入。为防止溅入眼睛，请戴防护眼镜或使用透明保护屏。如皮肤接触Beyozol，请立即用大量去垢剂和水冲洗，如仍有不适，请听取医生意见。
- Beyozol抽提总RNA的同时，理论上也可抽提蛋白和DNA，但未经测试。有兴趣者可按Invitrogen公司的TRIzol的操作步骤进行操作。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明:

1. 细胞裂解或组织匀浆。
   a. 贴壁细胞
      吸尽培养液，每10平方厘米细胞加入1ml Beyozol。一般六孔板每孔加1ml Beyozol，12孔板每孔加0.5ml Beyozol。晃动3-5下，再用枪吹打2-3下，确保全部裂解，然后吸至离心管中。
   b. 悬浮细胞
      离心收集细胞，吸尽液体，每五百万至一千万动植物或酵母细胞，或一千万细菌，加入1ml Beyozol。用枪吹打或适当vortex，确保全部裂解。某些酵母和细菌如裂解不充分，可用匀浆器匀浆，确保全部裂解。

c．组织

先将组织剪切成小块，放入普通玻璃匀浆器内。每50mg-80mg组织加入1ml Beyozol，匀浆。对于RNA完整性要求比较高的情况，推荐先液氮冷冻组织块，然后在低温下用研钵研碎组织，随后再加入Beyozol进行总RNA抽提。

2．对于某些蛋白，多糖或脂含量很高的细胞或组织，Beyozol裂解后可能会有不溶物或油脂状漂浮物。需12,000g 4°C离心10分钟，然后吸取澄清的Beyozol裂解产物至一新的离心管中。

3．室温放置5分钟，使样品充分裂解。

4．每毫升 Beyozol加入0.2ml氯仿，vortex混匀或猛烈晃动15秒，室温放置2-3分钟。

5．12,000g 4°C离心15分钟，然后吸取含总RNA的上层无色水相至一新的离心管中，每毫升Beyozol约可吸取0.5-0.55ml。

6．按每毫升最初的Beyozol加入0.5ml异丙醇，颠倒数次混匀，室温沉淀10分钟。如果希望提取microRNA等小RNA，推荐-70°C沉淀过夜。

7．12,000g 4°C离心10分钟，在管底可见RNA沉淀，弃上清。

8．每毫升最初的Beyozol加入1ml 75%乙醇(DEPC水配制)，vortex或颠倒混匀。

9．7,500g 4°C离心5分钟，弃上清。再用离心机甩一下（>5,000rpm，离心1秒），小心吸尽液体。

10．待RNA略干后，加入20μl DEPC水溶解，-70°C冻存。注意，切勿让RNA过分干燥，否则将极难溶解，且测出的A260/280值会低于1.6。

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