ELK Biotechnology

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RNA Stabilization Solution (Non-frozen tissue RNA storage fluid)

Catalog No.	Specification	Storage/Shelf life
EQ020-20 mL	RNA Stabilization Solution (Non-frozen tissue RNA storage fluid)	Room temperature/2 year

Introduction

RNA Stabilization Solution is a non-toxic sample storage solution that can be used directly. It can separate RNA from RNase in cells, and can quickly and reliably preserve RNA in animal tissues and cells. The tissue is immediately immersed in the RNA Stabilization Solution storage solution. It can be stored at room temperature for 7 days, 4°C for 4 weeks, -20°C or -80°C specimens can be stored for a long time, RNA is stable and does not degrade. Use various methods after removal High-quality RNA can be obtained by extraction.

Operating procedures:

1. Calculate the amount of RNA Stabilization Solution required according to the volume of each sample to be stored. The amount of RNA Stabilization Solution should be 10 times the volume of the tissue (approximately 1ml RNA Stabilization Solution for 100 mg tissue); the amount of RNA Stabilization Solution collected from 2×107 cells by centrifugation is 1ml. The principle of joining RNA Stabilization Solution is: Ning more than less.
It is recommended not to weigh the tissue in actual operation, but to directly add the amount of RNA Stabilization Solution based on the results of visual inspection to speed up the operation and reduce pollution. For example, a cubic tissue block with a side length of 5mm has a volume of 125mm3=125μl, so 1.25ml of RNA Stabilization Solution should be added.
2. Divide the RNA Stabilization Solution into self-prepared storage tubes according to the required amount;
3. Quickly cut the larger tissue into any sheet with a thickness of <0.5 cm, and remove the smaller tissue directly, and immediately completely immerse it in the RNA Stabilization Solution.
Note: The thickness of the tissue must be <0.5 cm. If the tissue is too thick, the RNA Stabilization Solution cannot penetrate effectively, and the RNA in the middle part of the tissue cannot be protected. Larger tissues can be cut into any slices with a thickness of <0.5 cm and stored. Smaller tissues (such as rat kidneys, spleen, and most organs of mice) can be directly immersed in RNA Stabilization Solution.
4. When storing, first immerse the sample in RNA Stabilization Solution and then place it in a refrigerator overnight at 4°C
(Note: overnight at 4°C is necessary so that RNA Stabilization Solution can completely infiltrate the tissues), and then transfer to a refrigerator at -20°C (RNA Stabilization Solution is still liquid at -20°C, if crystals precipitate, it is normal); or after overnight in the refrigerator

at 4°C, remove the tissue block from RNA Stabilization Solution and transfer the tissue block to -80°C refrigerator. For specimens stored in RNA Stabilization Solution, repeated freezing and thawing to room temperature 20 times will not affect the quality of RNA.

Attention

1. The tissues and cells should be collected quickly, and should be immersed in RNA Stabilization Solution as soon as possible after obtaining to prevent RNA degradation.
2. Frozen tissues cannot be stored with RNA Stabilization Solution, because RNA Stabilization Solution cannot effectively penetrate into frozen tissues.
3. RNA extraction of the preserved sample: After the sample is taken out of the refrigerator at -20°C or -80°C, after reheating to room temperature, the tissue block is taken out and used for RNA extraction. After rewarming the cell sample, collect the cells by low-speed centrifugation, remove the RNA Stabilization Solution, and then use it for RNA extraction. Subsequent processing (such as tissue homogenization) can be carried out at room temperature, without operating in liquid nitrogen, RNA can still be effectively protected. The remaining small amount of RNA Stabilization Solution preservation solution does not affect the quality of subsequent RNA extracted.
4. RNA Stabilization Solution has a good effect in the protection of RNA in animal tissues (such as rat liver and spleen) and cells (such as DH5α); there are so many kinds of plant materials that can not be tested one by one (RNA in tobacco and Arabidopsis leaves can Effectively protected by RNA Stabilization Solution), it is recommended to use it after pre-experiment.
5. For your safety and health, please wear lab coats and disposable gloves for operation.