Ribonuclease A (bovine pancreas)

Product description

Ribonuclease A (RNase A) is an endonuclease with a molecular weight of about 13.7 kDa, which can specifically recognize pyrimidine 3 '-ribose phosphate groups on RNA and cut phosphodiester bonds formed by adjacent nucleotides. The products of the reaction are pyrimidine 3' phosphate and oligonucleotides with pyrimidine 3' phosphate at the end (for example, pG-pG-pC-pA-pG cleaved by RNase A produces pG-pG-pCp and A-PG). RNase A can cut single-stranded RNA, double-stranded RNA and RNA strands formed by RNA-DNA hybridization under low salt concentration (≤100 mM NaCl). At high salt concentrations (≥ 0.3M), RNase A only specifically cuts single-stranded RNA. The recommended working concentration is 1-100μg/mL, compatible with various reaction systems.

The most common application of RNase A is the removal of RNA during plasmid DNA or genomic DNA preparation. The presence or absence of DNase activity during this preparation is one of the pollution that needs attention. Since RNase A does not become inactivated by heating, the traditional method of water bath boiling can be used to inactivate DNase activity. In addition, this product can also be used for RNA enzyme protection analysis, RNA sequence analysis and other molecular biology experiments.

Composition and storage conditions

Components \ Size	100 mg	1 g
Ribonuclease A (bovine pancreas)	100 mg	1 g
Store the components at -20 °C		

Usage

Storage solution preparation

1. 10 mg/mL RNase A storage solution was prepared with 10 mM sodium acetate (pH 5.2);
2. 100 °C heating for 15 min;
3. Frozen at -20 °C, it can be stably stored for up to 2 years.

Note: This is one of the common methods for preparation of RNase A storage solution, or other methods can be used to prepare the storage solution (such as directly dissolved in 10 mM Tris-HCl (pH 7.5) or Tris-NaCl solution) according to the traditional methods in the laboratory, or reference materials.

Notes

1. When RNase A solution is boiled under neutral conditions, RNase precipitation will be formed; If it is boiled at a lower pH, precipitation can be observed, possibly due to the presence of protein impurities. If precipitation is found after boiling, impurities can be removed by high-speed centrifugation (13000 rpm), and then packaged and frozen.
2. RNase A will strongly adsorb on the glassware. It is recommended that the prepared solution be installed in the plastic centrifuge tube.
3. For researchers operating complete RNA experiments at the same time, it is important to beware of RNase A interfering with test accuracy.
4. For your safety and health, please wear a lab coat and disposable gloves.
5. This product is for scientific use only!

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