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DNase Digestion Kit

Product Number: RNK3401

Shipping and Storage

Store DNase buffer at -20℃, buffer RW1 at room temperature or 4℃, RNase free DNase at -20℃ to avoid repeated freeze-thaw cycles.

Component

Component	Storage	RNK3401 50preps
DNase Buffer	-20℃	1.25 ml×2
RNase free DNaseI	-20℃	0.25 ml
Buffer RW1	RT	40 ml

Description

Any total RNA extraction reagent cannot completely avoid trace residues of DNA during the extraction process. Our EASYspin series RNA extraction products, due to our unique buffer system and special silica gel adsorption membrane, can remove the vast majority of DNA contamination, so DNaseI digestion is generally not required. However, for some sensitive downstream experiments, it is necessary to remove trace amounts of DNA residue. You can purchase our DNase Digestion Kit and directly digest the remaining DNA on a centrifuge adsorption column. Then, pure RNA can be washed off and used directly. This product is compatible with all silica gel membrane centrifuge column RNA extraction kits.

Feature

1. Simple and fast, with optimized conditions, it can generally digest and remove residual DNA on the silicone membrane in 15 minutes.
2. Ensuring RNase free can ensure the integrity of RNA molecules.
3. Wide compatibility, can be integrated into all silica gel membrane centrifuge column RNA extraction kit columns for digestion, without the need to extract total RNA and then remove residual DNA separately.

Note

DNase is very sensitive and prone to physical damage, denaturation, and loss of activity, so do not mix DNase I and working fluid evenly. Gently blow or invert to mix well. Prepare fresh working waves in advance during RNA extraction. DNaseI Buffer is specifically designed for column digestion in conjunction with RNase free DNaseI. A typical 10 x DNase Buffer cannot be used for membrane DNase digestion and cannot be replaced.

Protocol

1. Following the normal RNA extraction steps, the mixture was lysed and centrifuged completely (RNA including residual DNA was adsorbed onto the silica gel membrane of the centrifugation column). Before adding Buffer RW1, the following steps were followed.
2. Gently blow and mix 45μl DNase Buffer and 5μl RNase free DNaseI centrifuge tubes to form a working solution (prepare the working solution by scaling up multiple centrifuge columns in proportion).

   Note: If excessive residual DNA leads to incomplete digestion, the use of enzymes can be increased proportionally to improve digestion efficiency (such as 90μl DNase Buffer and 10μl RNase free DNase I).
3. Add 350μl Buffer RW1 to the adsorption column RA, centrifuge at 12000rpm for 30 seconds, discard the waste liquid, and place the adsorption column in the recovery header.

4. Add 50μl of DNaseI working solution to the center of the adsorption column RA and let it stand at room temperature (20-30℃) for 15 minutes.
   Note: Drop the working liquid directly onto the center of the membrane, do not let the working liquid drop onto the O-ring or centrifuge column wall.
5. Add 350μl Buffer RW1 to the adsorption column RA, centrifuge at 12000rpm for 30-60 seconds, discard the waste liquid, and place the adsorption column in the recovery manifold.
6. Follow up on buffer RW steps and other related steps. If it is a reagent kit from another company, proceed with the final rinsing solution rinsing and other subsequent steps.