PrimeXtract™

TOTAL NUCLEIC ACID ISOLATION FOR MOLECULAR APPLICATIONS AND NEXT-GENERATION SEQUENCING

Product Information

PRINCIPLE

PrimeXtract™ is a highly efficient, rapid, and easy to use spin column extraction and purification system for total RNA/DNA from bacterial and viral specimens. The spin column and buffers are specifically designed to maximize RNA/DNA recovery. When used with specimens collected in PrimeStore MTM®, the extraction yield is superior to other extraction spin columns.

STORAGE

The reagents and materials are stable for 18 months at ambient temperature (15-28 ºC) and 2 years stored refrigerated (4-10 ºC).

SPECIMEN

Primary specimens or cultured samples (cells, sputum, throat and nasal swabs, environmental samples, etc.) are suitable for use with PrimeXtract. Additionally samples collected in PrimeStore MTM® are optimized for use with PrimeXtract™.

Product Use Limitations: PrimeXtract is intended extraction of high quality DNA/RNA from microbial samples with no claims for any specific clinical use. It is the user's responsibility to validate the performance of the PrimeXtract system for a specific use as determined by the established protocol for the user's laboratory. PrimeXtract is not intended for use in identifying a specific organism, or for clinical diagnostic purposes.

Extraction and Purification Protocol:

Starting Material: Up to 0.5 mL of primary sample (nasal washing, sputum, environmental sample), or a throat or nasal swab collected specimen inactivated in a PrimeStore MTM® collection tube or other collection/storage medium (UTM, nalc decontaminated, etc.)
NOTE: Required reagent not included with kit: Ethanol, 100%, ACS Grade or better.

1. Remove PrimeXtract columns from the kit and store at ambient temperature (15 -28ºC).
2. (*Optional) Prior to extraction, pre-heat Elution Solution in a heating block to 60-70ºC. (**Optimal extraction recovery is obtained by using pre-heated elution solution.*)
3. Prepare sample by pipetting 200 µl of 100% ethanol (not provided), 200 µl of Lysis Buffer and 200 µl of sample into a clean 1.5 mL microcentrifuge tube (not provided). Vortex briefly 3-5 seconds and quick spin to remove liquid from cap. Incubate at room temperature for 5 minutes.
4. Pipette the entire contents of the prepped sample in step 3 into the extraction column /collection tube. Cap the column and place into a microcentrifuge. Centrifuge for 60 seconds at 13 x 1000 rpm.
5. Remove extraction column from collection tube and discard flow through (eluate) into waste container. Place column back into collection tube. The nucleic acid is bound to the silica filter.
6. Add 500 µl of Wash Buffer 1 to the extraction column. Centrifuge for 60 seconds at 13 x 1000 rpm. Remove tubes from centrifuge but do not empty flow through from collection tube.
7. Add 500 µl of Wash Buffer 2 to the extraction column. Centrifuge for 60 seconds at 13 x 1000 rpm. Discard the flow through from collection tube. Place column back into the same collection tube.
8. Repeat procedure in step 7, to wash the filter twice with Wash Buffer 2.
9. Centrifuge extraction column for an additional 60 seconds at 13 x 1000 rpm to remove trace amounts of Wash Buffers from the filter.
10. Discard collection tube and place extraction column (with bound nucleic acid) into a clean, 1.5 mL microcentrifuge tube (not provided).
11. Pipette 20-50 µl of Elution Solution (pre-heated) directly onto the silica filter without touching the filter membrane and incubate for 1 minute.
12. Centrifuge the columns for 60 seconds at 13 x 1000 rpm. Remove and discard the column from the microcentrifuge tube. Cap tube with eluted nucleic acid.
13. Store nucleic acid at -20 to +4ºC until ready for use. For long-term storage nucleic acid should be held at -80ºC.

PrimeXtract™ Reagent Safety and Health Precautions

PrimeXtract™ contains a proprietary blend of reagents that includes a chaotrophic compound (HMIS: Health Rating: 2, Physical Hazard: 0). These chemicals can be harmful if inhaled and/or ingested. PrimeXtract™ may cause irritation to skin, respiratory tract, and eyes. As with all chemicals, personal protective equipment (lab coat, gloves, safety goggles, etc.) should be used in accordance with the user's established laboratory safety guidelines.

First Aid Measures	
Skin Contacts	Get medical aid. Immediately flush skin with soap and water while removing contaminated clothing and shoes.
Eye Contact	Immediately flush eyes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Inhalation	Remove from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Ingestion	Do not induce vomiting. If victim is conscious and alert, give 2-3 cups of water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

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