RNase-ExitusPlus™

RNase decontamination solution
Product code A7153

RNase-ExitusPlus™ is a fast and effective ready-to-use agent for laboratory surfaces and equipment. The decontamination starts instantly after spraying on a contaminated surface. The benefit of the product is, that it is neither toxic for humans nor corrosive for laboratory material. Competitor products use unhealthy and corrosive agents. RNase-ExitusPlus™ is a non-alkaline and non-carcinogenic cleansing solution that is highly active against RNase contamination. RNase-ExitusPlus™ has been demonstrated to inactivate more than 20 µg of RNase A dried onto the bottom of a microcentrifuge tube. RNase-ExitusPlus™ is stable for approximately 12 months and heat resistant.

These are the new and unique characteristics of **RNase-ExitusPlus™:**

1) Catalytic and cooperative effects of the components cause a very rapid inactivation of protein and RNase molecules.
2) All components of RNase-ExitusPlus™ are readily biodegradable and not harmful or toxic to humans.
3) No aggressive mineral acids or alkaline substances are used. Equipment and materials are not damaged or corroded even after prolonged incubation times.
4) No toxic fumes. The reagent contains a low volume of alcohol only.
5) Elevated temperatures above approx. 50°C speed up the reaction and the efficiency / activity!

RNase-ExitusPlus™ is *ready-to-use* for eliminating RNase from any surface including the interior of microcentrifuge tubes. By following the simple decontamination instructions below, RNase is completely inactivated and removed. RNase-ExitusPlus™ should be stored at room temperature; at colder temperatures, a precipitate may form which is easily brought into solution at 37°C.

Instructions for use

1) The decontamination starts immediately after spraying or pouring.
   For full decontamination of surfaces, it is sufficient to wipe off RNase-ExitusPlus™ before it is completely dried up (after 10 to 15 minutes). It is not necessary to additionally clean with sterile water thereafter. This is a new feature in comparison to traditional decontamination solutions.
2) After the solution is completely dried, there is no further decontamination reaction taking place. Hence, an incubation time longer than 30 minutes is not necessary, and also not useful. In case of severe contamination, a second application of the solution is recommended for the highest efficiency.
3) For removal of unwanted, dried residual traces of the reagent, we recommend removing these traces with sterile water or 10X TE buffer and a paper towel.

Detailed instructions

To decontaminate laboratory surfaces: Apply RNase-ExitusPlus™ directly to the lab surface. Wipe thoroughly with a paper towel, rinse with water, and dry with a clean paper towel.

To decontaminate laboratory apparatus: Generously apply RNase-ExitusPlus™ to a paper towel and wipe all exposed surfaces of the apparatus thoroughly. Rinse with water and dry with a clean paper towel. To clean small parts, briefly soak them in RNase-ExitusPlus™, rinse with water and dry.

To decontaminate plastic and glass vessels: Add ample RNase-ExitusPlus™ to enable coating the entire surface of the vessel by swirling or vortexing. Discard the solution and rinse the vessels thoroughly two times with distilled water.

To decontaminate pipettors: Following the manufacturer's instructions; remove the shaft from the pipettor and remove seals and gaskets from the shaft. Soak the shaft for one minute in RNase-ExitusPlus™, rinse the shaft thoroughly with water, let dry and reassemble.

Quality control

Aliquots of RNase A (10 µg) were dried down in reaction tubes for samples 1, 3, and 4 **(Fig. 1)**. Afterward, RNase A samples were treated with 1 ml RNase-ExitusPlus™ (1) or H_2O (3, 4) for 5 minutes at RT. Two washing steps with 1 ml of sterile water followed. Then 5 µg total RNA from *E. coli* was added into each tube. Into tube 4, a fresh aliquot of 10 µg of RNase A was added. All tubes were incubated for 30 min. at 37°C. Finally, a loading buffer was added, and samples were loaded onto a 1% agarose gel. As a control, 5 µg untreated total *E. coli* RNA (C) was included.

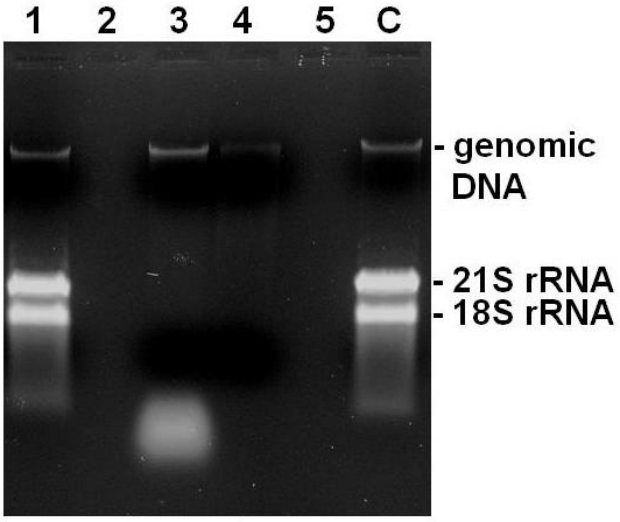

Fig. 1

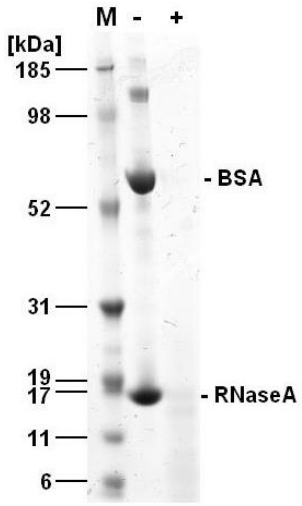

Fig. 2

Fig. 2. Analysis of autoclaved proteins without (-) and with (+) the addition of RNase-ExitusPlus™. Test solutions of 10 mM Tris, pH 8.0 with BSA (bovine serum albumin) and RNase A were autoclaved at 120°C and 1.2 bar for 20 minutes after the addition of equal volumes of either sterile water (-) or RNase-ExitusPlus™ (+). Subsequently, aliquots of 10 µl with 1µg BSA or RNase A, respectively, were analyzed on a 4-12 % polyacrylamide gel and stained with Coomassie Brilliant Blue. The sample containing sterile water (-) shows no significant degradation of the proteins, while the addition of RNase-ExitusPlus™ (+) leads to almost complete degradation.