

## ribonuclease enzyme

RNaseOFF Ribonuclease Inhibitor

CATALOG #  
AAA23885

HOST  
E. coli

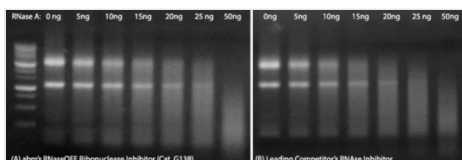
### PRODUCT SYNONYMS

Ribonuclease; RNaseOFF Ribonuclease Inhibitor; ribonuclease enzyme

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Sequence Length         | 163                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Application Notes       | <p>Always keep RNaseOFF on ice during reaction set-up. It is recommended to set-up all RNA-related or RNase-sensitive work under conditions where RNase contamination has been eliminated. The use of "clean" pipettors designated for PCR and aerosol-resistant barrier tips are recommended.</p> <p>RNaseOFF should be added to the reaction tube prior to the addition of other components (including the sample) to ensure RNase inhibitory activity. Prevent inactivation of RNaseOFF and release of active ribonuclease by avoiding temperatures greater than 50°C, and high concentrations of urea or other denaturing agents.</p> |
| Notes                   | <p>One unit is defined as the amount of RNaseOFF Ribonuclease Inhibitor that is required to inhibit the activity of 5 ng of RNase A by 50%. Always keep RNaseOFF on ice during reaction set-up. It is recommended to setup all RNA-related/RNase-sensitive work under conditions where RNase contamination has been eliminated. Pipette tips and tubes should be treated with 0.1% DEPC. Wearing gloves is highly recommended while working with RNA.</p>                                                                                                                                                                                 |
| Preparation and Storage | Store all components at -20°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

### IMAGES



#### Application Data

In order to compare the ability to inhibit ribonuclease activity, rat RNA was pre-mixed with RNaseOFF (Left image) and the leading competitor's RNase (right image) in a 20ul reaction. Increasing amount of RNase A enzyme ranging from 5ng to 50ng per reaction was added to into each reaction mixture. The reactions were incubated at 37°C for 15 minutes and loaded onto a 2% gel to visualize the degree of RNA degradation. At 15ng/rxn of RNase A, both 28S and 18S ribosomal RNA bands are clearly visible in RNaseOff Reaction (left image). However, the 28S band is degraded in the competitor's reaction (right image).

### ADDITIONAL INFORMATION

#### Related Product Information for ribonuclease enzyme

RNaseOFF Ribonuclease Inhibitor specifically inhibits common ribonucleases (RNases), including RNase A, B and C, with high affinity. This enzyme is a useful additive in PCR or RT-PCR as it safe-guards RNA against potential RNase contamination without inhibiting polymerase activity. This robust version of RNase inhibitor has improved resistance to oxidation over the highly oxidation-sensitive human RNase inhibitor. RNaseOFF Ribonuclease Inhibitor is stable even under very low concentrations of DTT (< 1 mM), making it the best choice for ultimate RNA protection.

NCBI AND UNIPROT INFORMATION

|                         |              |
|-------------------------|--------------|
| NCBI GI #               | 153424       |
| NCBI Official Full Name | ribonuclease |
| UniProt Protein Name    | Ribonuclease |
| UniProt Gene Name       | ribonuclease |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://www.aaabiotech.com/e-coli-enzyme/ribonuclease/23885>