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SUPERase•In™ RNase Inhibitor

Catalog Number AM2694, AM2696

Pub. No. 4393876 **Rev.** E

Contents	Quantity	Storage conditions
SUPERase•In™ RNase inhibitor, 20 U/µL	Cat. no. AM2694: 2,500 Units	Store at –20°C. *Do not store in a frost-free freezer.*
	Cat. no. AM2696: 10,000 Units	

WARNING! Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from **www.lifetechnologies.com/support**.

Product Description

Nuclease-free SUPERase•In™ RNase Inhibitor is a protein-based ribonuclease inhibitor which noncovalently binds and inactivates a wide variety of RNases in a range of temperature (37–65°C) and pH (5.5–8.5) conditions. This product is distinct from ANTI-RNase Inhibitor (Cat. nos. AM2690, AM2692) and placental RNase Inhibitor protein (Cat. nos. AM2682, AM2684) in that it inactivates RNases I and T1 in addition to RNases A, B and C. Both ANTI-RNase Inhibitor and SUPERase•In™ RNase Inhibitor are distinct from RNase Inhibitor protein in that they have more robust interactions with RNAses, and do not release active RNases in the absence of DTT or other reducing agents. SUPERase•In™ RNase Inhibitor does not interfere with the activities of SP6, T7, and T3 RNA Polymerases, MMLV Reverse Transcriptase, or Taq DNA Polymerase.

Unit (U) definition: SUPERase•In™ RNase Inhibitor at 1 U/µL will block the degradation of 0.1 µg/µL labeled RNA by 2.5 pg/µL of RNase A, 2.5 pg/µL of RNase I and 0.0075 U/µL of RNase T1, for 4 hours at 37°C, in 20 mM Tris-HCl, pH 7.5, 50 mM NaCl, 1 mM EDTA. Analysis is by denaturing PAGE.

Storage buffer (*not included*): 2 mM KH_2PO_4, 8 mM Na_2HPO_4, 2.7 mM KCl, 137 mM NaCl, pH 7.4 in 50% glycerol.

Using Superase In RNase Inhibitor

Use SUPERase•In™ RNase Inhibitor at a final concentration of 1 U/µL to prevent RNA degradation in applications including cDNA synthesis, RT-PCR, *in vitro* transcription, *in vitro* translation, preparation of cell lysates, RNA isolation and storage, and in any application where ribonuclease inhibitor protein is used. In experiments requiring intact RNA, (e.g., transcription), avoid denaturation of the SUPERase•In™ protein by heat, SDS or other detergents, urea, etc., which could release active RNases. The addition of DTT is not recommended for storage.

Note: Heating samples containing SUPERase•In™ RNase Inhibitor and DTT to 95°C may cause RNA to hang up in the wells of denaturing urea/polyacrylamide gels. Load directly onto gels without heating.

Limited product warranty

For Research Use Only. Not for use in diagnostic procedures.

The information in this guide is subject to change without notice.

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