RNase Inhibitor

Catalog Number: EZ2023-01

EZ2023-01 RNase Inhibitor (10,000 units)
Concentration: 40 units/µL
Volume: 0.25 mL
Storage Conditions: Store at 2°C to 8°C
Inhibits: RNases A, B, and C
Supplied in: 1X PBS with 0.05% Sodium Azide.
Unit Definition: One unit of Protein RNase Inhibitor will inhibit the activity of 5 ng of RNase A by 50%.
Nuclease activity: None detected.

Product Description:

EZ2023-01 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 placental RNase Inhibitor protein in that it inactivates RNases I and T1 in addition to RNases A, B and C. EZ2023-01 is distinct from RNase Inhibitor protein in that it is less expensive, have more robust interactions with RNases, and do not release active RNases in the absence of DTT or other reducing agents. EZ2023-01 does not interfere with the activities of SP6, T7, and T3 RNA Polymerases, MMLV Reverse Transcriptase, or Taq DNA Polymerase.

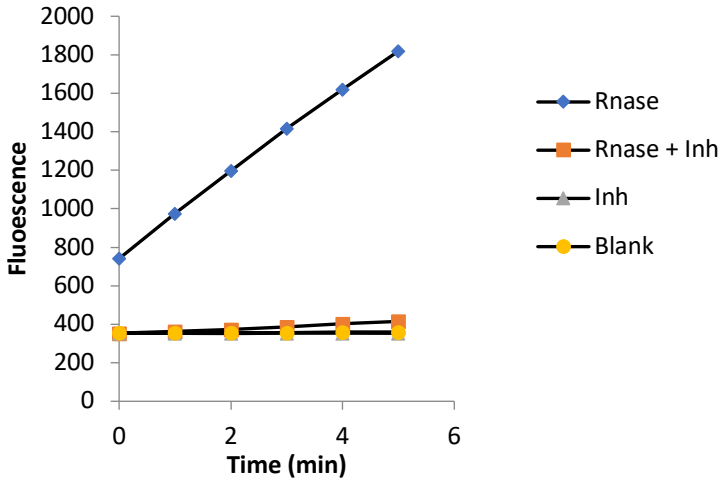

Figure 1. Inhibition of RNase A using EZ2023-01. RNase activity was analyzed using an fluorescent RNase A activity assay. Samples include RNase A alone (Rnase), RNase A with EZ2023-01 (Rnase + Inh), EZ2023-01 alone (Inh) and a blank (Blank).

Applications:

EZ2023-01 is used at a final concentration of 1-10 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 RNase Inhibitor protein. The addition of DTT is not recommended for storage.