



Glycerol-free RNase Inhibitor, Murine

Manual

Catalog #	3712GF	3714GF
Package Size	5,000 units	20,000 units
Concentration	40 units/ μ l	



Important!

-80°C Storage Required

- * Immediately inspect packages
- * Freeze upon receipt



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Intact Genomics, Inc.

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Description:

RNase inhibitors are commonly used to inhibit and control RNase contaminants in enzymatic manipulations of RNA. Intact Genomics (ig®) Glycerol-free RNase Inhibitor is a 49.8 KDa recombinant protein of murine origin which specifically inhibits RNases A, B and C by binding noncovalently in a 1:1 ratio with high affinity. Moreover, it does not inhibit polymerase activity when used with *Taq* DNA Polymerase, Reverse Transcriptase. RNase Inhibitor from Murine is resistant to oxidation compared to the human/porcine RNase inhibitors as it lacks the pair of cysteine residues found in the human/porcine versions. In addition, it is stable at less than 1 mM DTT concentration.

Protein Source:

E. coli strain expressing recombinant RNase Inhibitor gene from mouse.

Applications:

- cDNA synthesis
- RT-PCR/RT-qPCR
- *In vitro* transcription/translation
- RNA labeling
- Microfluidics assays

Benefits of Glycerol-Free Enzyme:

- **Optimal for Lyophilization:** Perfect for freeze-drying into diagnostic kits, ensuring stability and performance for point-of-care tests like molecular diagnostics.
- **Better Compatibility:** Avoid interference in sensitive applications where glycerol limits solubility in certain organic solvents.
- **Improved Performance:** Enzyme formulations are easier to handle in high-throughput assays, as there's no added viscosity affecting pipetting.
- **Simplified Integration:** Allow for more flexible formulation, making it easier to add specific stabilizers or buffers for optimized performance in various systems.

Protein Purity:

The physical purity of this enzyme is $\geq 98\%$ as assessed by SDS-PAGE with Coomassie® blue staining.

Product Components & Storage:

- RNase Inhibitor, Murine, Glycerol-free : -80°C

Enzyme Storage Buffer

- 50 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, pH 7.5 @ 25°C

Heat Inactivation:

70°C for 20 minutes

Unit Definition:

One unit is defined as the amount of RNase Inhibitor is required to inhibit the activity of 5 ng of RNase A by 50%.

Quality Control:

SDS-PAGE purity, protein concentration, endodeoxyribonuclease assay, performance evaluation with RT-qPCR with activity meeting or exceeding reference enzyme.

Related Products:

- igScript™ Probe-Based One Step RT-qPCR Kit (Cat.# 3212)
- ig® SYBR Green qPCR 2x Master Mix (Cat.# 3354)
- *Taq* DNA Polymerase 2x Premix (Cat.# 3249)
- igScript™ Reverse Transcriptase (Cat.# 3344)
- IgScript™ Glycerol-free Reverse Transcriptase (Cat.# 3344GF)
- igScript™ Probe-Based One Step RT-qPCR Kit (Cat.# 4212)

Ordering Information:

- Order online within the USA. Place orders on **www.intactgenomics.com** using our secure Shopping Cart.
- Order by email, phone, or fax.
Email: **sales@intactgenomics.com**
Phone: (314) 942-3655 | Toll-free : 855-835-7172 | Fax: (314) 942-3656
- Order via our distributors.

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Technical Support & Customer Services

Intact Genomics (IG®) is dedicated to customer satisfaction regarding the use of our products for your research needs. Each new lot of our products is thoroughly tested to ensure it meets high quality standards and provides excellent results. We appreciate your business and your feedback regarding the performance of our products in your applications. Please follow the instructions carefully and contact us if additional assistance is needed.

Our hours are Monday - Friday, 8AM to 5PM, U.S. Central Standard Time.

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