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Thunder™ RT

An RNA-dependent DNA polymerase

Thunder reverse transcriptase is an RNA-dependent DNA polymerase that can be used for complementary DNA (cDNA) synthesis from an RNA template and is ideal for use in PCR and isothermal amplification. Thunder RT is a robust enzyme that works in a broad range of temperatures (40-72 °C) and has RNase H activity.

Properties

- **Optimal temperature**: 55 °C
- **Heat inactivation**: 75 °C for 20 minutes
- **10X Isothermal buffer** included**. *Please use supplied buffer for optimal results.***
- **Storage temperature**: -20 °C
- **Can be supplied in a glycerol-free/custom buffer**

Shipping & Storage

Thunder RT is stored at -20 °C in 50% glycerol, 10 mM Tris-HCl, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, pH 7.5.

Shipped on dry or blue ice. On arrival store at -20 °C for optimum stability. Repeated freeze/thaw cycles should be avoided.

Varizymes also offers a variety of encapsulated RNA controls VariSafe™ for common targets, and we would love to work with you to develop a unique control to suit your needs. For more information visit **www.varizymes.com** or email us at **info@varizymes.com**.

**These products are intended for research use only, not for diagnostic use. The safety and efficacy of these products in diagnostic or other clinical uses has not been established.*

Thunder reverse transcriptase

Catalog No.: 7100
Expressed in: E. coli

Contents

Thunder reverse transcriptase is provided at a concentration of 10 reactions/µL with 10X Isothermal buffer

Background

Thunder reverse transcriptase is an RNA-dependent DNA polymerase that can be used for complementary DNA (cDNA) synthesis from an RNA or DNA template and is ideal PCR and isothermal amplification. Thunder RT is a robust enzyme that works in a broad range of temperatures (40-72 °C) and has RNase H activity.

Application Notes

Thunder RT is a robust enzyme used for first-strand synthesis of complementary DNA (cDNA) from RNA or single-stranded DNA templates. It is ideally suited for PCR and isothermal amplification.

Quality Control

- **Thunder RT Unit activity**: A known reverse transcriptase is used to create a standard curve with a real-time qRT-PCR assay against which the activity of this enzyme is measured.
- **Purity**: >95% as determined by SDS-PAGE analysis
- Thunder RT is free of detectable RNase and DNase (exo- and endonuclease).
- <0.05 ng contaminating host DNA per 12 U (1 rxn)

1X Isothermal Reaction Buffer
20 mM Tris-HCl (pH 8.3)
10 mM K_2SO_4
50 mM KCl
2 mM $MgSO_4$
0.1% Tween 20

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