



ThermaGo™ Instructions for Use.

To prepare a 5 Units/ μ l ThermaGo stock:

GENERAL INFORMATION:

ThermaGo™ interacts with DNA polymerase during the annealing and extension steps of PCR to improve amplification specificity and prevent PCR artifacts.

One unit of ThermaGo is defined as the amount required for maximum improvements in specificity, yield, and reproducibility in amplification reactions containing 1 unit of Taq DNA polymerase in a volume of 25 μ l. Some adjustment of ThermaGo to Taq ratio maybe needed to obtain optimal results.

CONTAINS:

A single tube of dried ThermaGo reagent. Does not contain magnesium, dNTPs, or buffer components.

PREPARATION:

- To prepare a 5 Units/ μ l ThermaGo stock:

- Centrifuge Therma-Go™ tube briefly to insure the dried reagent is at the bottom of the tube.
- Add sterile, molecular-grade 10 mM Tris-Cl, pH 8.3; 100 μ l for vials containing 500 units, or 500 μ l for vials containing 2500 units
- Vortex tube for at least 1-2 minutes.
- Allow tube to sit at room temperature for six hours (or overnight) with occasional mixing to insure reagent is completely dissolved.
- Vortex an additional minute, then centrifuge briefly.
- Aliquot into smaller volumes, if desired.

RECOMMENDED STORAGE CONDITIONS:

- ThermaGo can be at stored 4°C or -20°C in dark (or light protected) tubes.
- If frozen, divide stock into small volume aliquots to avoid freezing and thawing more than 5 times.



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USE:

- Add a number of units of ThermaGo equal to the number of units of Taq DNA polymerase in the amplification reaction.
 - Example: For 25 μ l reactions containing 1 unit of Taq DNA polymerase (0.2 μ l of 5 Units/ μ l Taq DNA polymerase) add 1 unit of ThermaGo (0.2 μ l of 5 Units/ μ l ThermaGo)
- ThermaGo dramatically improves Taq DNA polymerase specificity. For targets containing known mis-matches with the primers there may be a delayed amplification or failure to amplify.
- In some cases, it may be necessary to titrate the amount of ThermaGo between 0.5 - 2.0 units of ThermaGo per unit of Taq DNA polymerase to obtain improved product specificity without reducing amplification efficiency.
- ThermaGo can be used in combination with ThermaStop.