



# CleanAmp™ dNTPs

The Next Generation in Hot Start PCR

---



**TriLink**  
BioTechnologies

# CleanAmp™

## dNTPs

### A New Approach to High Stringency PCR

CleanAmp™ dNTPs are the most versatile solution in TriLink's line of PCR enhancing products. CleanAmp™ dNTPs offer a universal approach to improved Hot Start PCR. Replacement of the standard dNTPs, the essential DNA polymerase substrate, with CleanAmp™ dNTPs, offers the same advantages as more costly Hot Start enzymes.

CleanAmp™ dNTPs offer precise control at the start of PCR thermal cycling by blocking DNA polymerase nucleotide incorporation until heat activated. The temperature-dependent control of DNA polymerase extension vastly reduces mis-priming, primer dimer formation and other common deleterious effects (Figure 1). This improvement in the specificity of target amplification allows for enhanced detection of low input template concentrations (Figure 2).

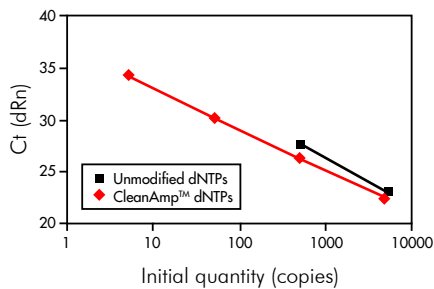


Figure 2: CleanAmp™ dNTPs improve the limit of detection in real-time PCR by two orders of magnitude.

### A Flexible Solution

CleanAmp™ dNTPs are compatible with a number of thermostable DNA polymerases, allowing for great flexibility in PCR design (Figure 3). The use of CleanAmp™ dNTPs in the experiment shown in Figure 3 eliminated or reduced primer dimer formations. Moreover, all of the DNA polymerases were able to produce the desired amplicon demonstrating the versatility of CleanAmp™ dNTPs.

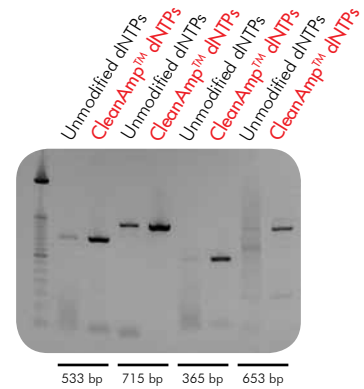


Figure 1: CleanAmp™ dNTPs improve amplification yield and specificity for a number of targets in PCR.

### CleanAmp™ dNTPs:

- Offer a significant cost savings over other Hot Start technologies
- Allow easy introduction into PCR reactions
- Reduce or eliminate primer dimer formation
- Reduce or eliminate mis-priming

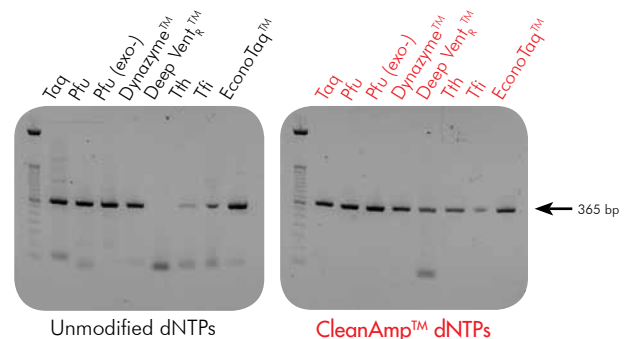


Figure 3: CleanAmp™ dNTPs are compatible with a number of commercially available DNA polymerases suited for PCR.

## Improved PCR Performance

When CleanAmp™ dNTPs are used in combination with other Hot Start solutions, a greater benefit can be achieved (Figure 4). CleanAmp™ dNTPs can also be used in conjunction with our CleanAmp™ Primers to offer even greater control of your reaction. An improvement in PCR performance can be seen, especially with CleanAmp™ Precision Primers, where off-target amplification was entirely eliminated. Although each Hot Start approach improves the specificity and efficiency of PCR reactions, this improvement can be further enhanced when used in combination with CleanAmp™ dNTPs.

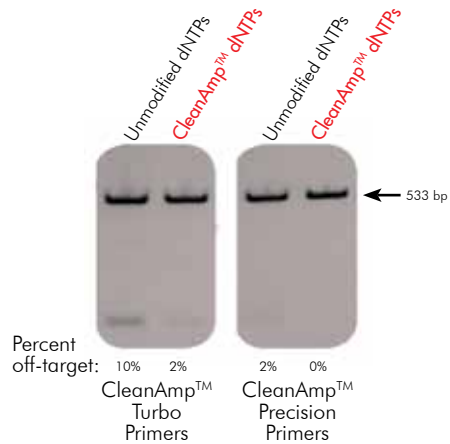


Figure 4: When used in combination with other Hot Start technologies, such as CleanAmp™ Primers (Turbo or Precision), CleanAmp™ dNTPs provide further improvements to PCR performance.

## Ordering

CleanAmp™ dNTPs offer excellent results in a number of PCR-based applications for a fraction of the cost of other Hot Start solutions. CleanAmp™ dNTPs can be ordered by phone, email or online. They are sold as a mix of dATP, dCTP, dGTP and dTTP at 10 mM concentration each in two convenient pack sizes.

### CleanAmp™ dNTP Mix

N-9501-2	2 μmole each (4 x 2 μmoles)	\$90
N-9501-10	10 μmole each (4 x 10 μmoles)	\$350

## Signature TriLink Quality

TriLink has over 12 years of experience in making modified nucleoside triphosphates. Our strong quality commitment and our extensive knowledge of triphosphate chemistry results in the best products possible. All CleanAmp™ dNTPs are analyzed by AX-HPLC, RP-HPLC, <sup>31</sup>P NMR, <sup>1</sup>H NMR and Mass Spec and are tested in a functional assay.

Contact Us to Discuss Your Project Today!



TriLink BioTechnologies is an industry leader in manufacturing high quality oligonucleotides and nucleoside triphosphates at small and mid-scales.

TriLink operates a GMP laboratory with a QSR environment and provides:

- Milligram to multi-gram synthesis
- Highly-modified oligonucleotides and nucleosides
- Custom chemistry
- Contract research services
- Industry-leading technical support

TriLink BioTechnologies, Inc.  
9955 Mesa Rim Road  
San Diego, CA 92121 USA

Phone: (800) 863-6801  
Fax: (858) 546-0020

[www.trilinkbiotech.com](http://www.trilinkbiotech.com)  
[info@trilinkbiotech.com](mailto:info@trilinkbiotech.com)

CleanAmp™ is a trademark of TriLink BioTechnologies, Inc. CleanAmp™ products or portions thereof are covered by TriLink pending Patent Applications: AU2007268075, CA2653841, EP2032714, US2007281308, WO2007139723, US2009044910, US2010003724, WO2009151921, and US Patent 6762298 licensed from the Department of Health and Human Services. CleanAmp™ products are sold exclusively for R & D use by the purchaser. They may not be used for clinical or diagnostic purposes and they may not be resold, distributed or re-packaged. No license is granted or implied with the purchase of this product. It may be necessary to obtain a separate license for certain patented applications in which the product is used.

Copyright © 2009 TriLink BioTechnologies, Inc. All rights reserved by the respective owner. OligoBuilder is a registered service mark and the TriLink logo is a trademark of TriLink BioTechnologies, Inc. All other trademarks are covered by their respective owners.

Version IV, April 2010



Printed on 30% Post  
Consumer Recycled Paper  
Printed with Soy-Based Inks