



Biotin-14-dCTP

Catalog Number	Packaging Size
C430	50 nmol

Storage upon receipt: -20°C

I. Product Description

Biotin-14-dCTP is a dCTP analog that contains biotin attached at the N⁴-position via a 14-atom linker. Biotin-14-dCTP is provided as a 0.4 mM solution in 100 mM Tris-HCl (pH 7.5), 0.1 mM EDTA. The amount of material provided is sufficient for labelling up to 50 µg of DNA by nick translation.

The biotin-labelled nucleotide can be incorporated into DNA by nick translation in the presence of dATP, dGTP, and dTTP (1). Other nick translation protocols or labelling procedures, such as tailing with terminal deoxynucleotide transferase (2) or random primed synthesis (3), may also be used. The biotin-labelled DNA can be detected colorimetrically using Steptavidin-Alkaline Phosphatase Conjugate and an appropriate chromogenic substrate or by chemiluminescence using streptavidin alkaline phosphatase and an appropriate chemiluminescent substrate.

II. Quality Control

Purity of biotin-14-dCTP is evaluated by reverse phase HPLC. A single peak with >90% of the area must be observed.

III. References

1. Gebeyehu, G., Rao, P. Y., SooChan. P., Simms, D. S., and Klevan, L.(1987) *Nucleic Acids Res* 15, 4513.
2. Flickinger, J. C., Gebeyehu, G., Buchman, G., Haces, A., and Rashtchian, A. (1992) *Nucleic Acids Res* 20, 2382.
3. Mackey, J. and Rashtchian, A. (1992) *Focus*[®] 14, 21.