Invitrogen
life technologies

Biotin-14-dCTP

Cat. No. 19518-018 **Size: 50 nmol**
Store at -20°C.

Description:
Biotin-14-dCTP is a patented dCTP analog that contains biotin attached at the N^4-position via a 14-atom linker. It 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). The Nick Translation System (Cat. No. 18160-010) is recommended for the incorporation of biotin-14-dCTP. 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 (Cat. No. 19542-018) and an appropriate chromogenic substrate or by chemiluminescence using streptavidin alkaline phosphatase and an appropriate chemiluminescent substrate.

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

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.

Doc. Rev.: 011502

This product is distributed for laboratory research only. CAUTION: Not for diagnostic use. The safety and efficacy of this product in diagnostic or other clinical uses has not been established.

For technical questions about this product, call the Invitrogen Tech-LineSM U.S.A. 800 955 6288