Biotin-14-dATP

Catalog No: 14138, 14139

Format: 1 mg, 200 µg

Chemical Properties:
Formulation: 1 mg/mL (1mM) in 10 mM Tris, pH 7.5, 0.1 mM EDTA

Fluorescent Properties: None

Quality Control:
DNA polymerase incorporation of biotin-14-dATP via nick translation. (Fig. 2)
pBR322 DNA modified via a Pol I/DNAse I nick translation assay with a dNTP mix containing Active Motif's biotin-14-dATP as the ATP source. The reaction was terminated, and the DNA was spin column purified, quantified and spotted on nitrocellulose membrane. Biotin incorporation was assessed by incubating the membrane with HRP-conjugated anti-biotin antibody. **A**, nick translation with ATP. **B** and **C**, nick translation with biotin-14-ATP (biological replicates).

Storage and Guarantee: Store solution at -20°C.

Selected References:
de Wit *et al.* (2012) A decade of 3C technologies: insights into nuclear organization. Genes Dev. 26 (1):11.
Lieberman-Aiden *et al.* (2009) Comprehensive mapping of long range interactions reveals folding principles of the human genome. Science 326 (5959):289.
Nagano *et al.* (2015) Single-cell Hi-C for genome-wide detection of chromatin interactions that occur simultaneously in a single cell. Nature Protocols 10 (12):1987.
Belaghzal *et al.* (2017) Hi-C 2.0: An optimized Hi-C procedure for high-resolution genome-wide mapping of chromosome confirmation. Methods 123:56.
Berkum *et al.* (2010) Hi-C: A Method to Study the Three-dimensional Architecture of Genomes. J. Vis. Exp. 39:1869. This product is guaranteed for 12 months from date of receipt.
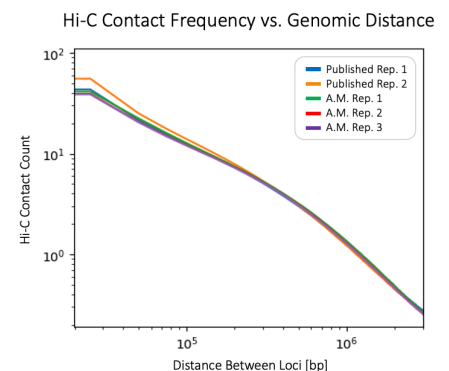
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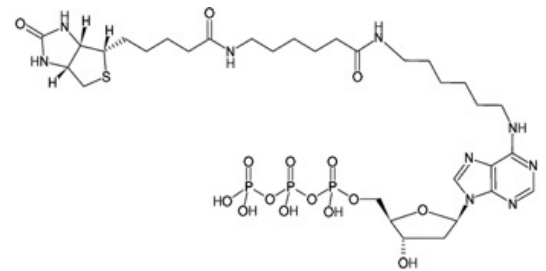
Structure of Biotin-14-dATP
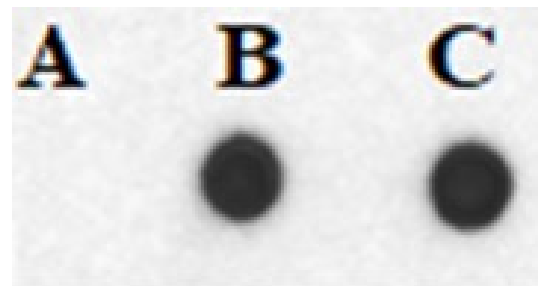
DNA polymerase incorporation of biotin-14-dATP via nick translation.

Hi-C datasets generated using Active Motif's biotin-14-dATP and another commercial reagent (Rao ref) show a similar distribution of contacts ranging from short- to long-distance, indicating that biotin-based capture using the Active Motif reagent is unbiased.