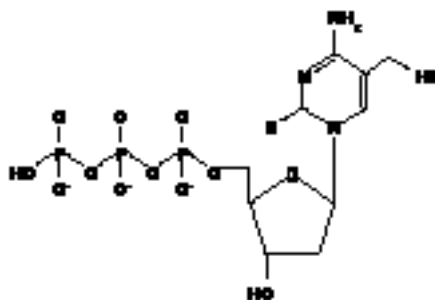


PRODUCT NAME		
Hydroxymethyl dCTP (hmdCTP)		
Full name: 5-hydroxymethyl-2'-deoxycytidine-5'-triphosphate (Lithium Salt)		
Cat. No: AF-102-0300	Format: 250 µl	Concentration: 100 mM

Formula: $C_{10}H_{14}Li_4N_3O_{14}P_3$



Molecular Weight: 520.9g/mol

Lambdamax : 275 nm

Extinction coefficient : $7.7 \times 10^3 \text{ M}^{-1} \times \text{cm}^{-1}$ (pH 7.0)

Description:

- hmdCTP is supplied as 100 mM aqueous solution titrated to pH 7.5
- > 99% pure by spectral and HPLC analysis
- hmdCTP can be enzymatically incorporated into DNA with MethylTaq DNA polymerase (Cat. No. AF-103-0250).
- Hydroxymethylated substrates can be ligated by standard ligases
- Free of endo-, exodeoxyribonuclease, phosphatase and nicking activities.

Applications:

- Synthesis of hydroxymethylated DNA (e.g. using MethylTaq DNA polymerase)
- Site-directed mutagenesis
- Substitution of dCTP in a wide variety of molecular biology assays
- Structural and activity studies of the restriction/modification systems of different organisms
- Methylation studies (e.g. Immunoprecipitation using a the monoclonal 5-hydroxymethylcytosine antibody (Cat. No. MAb-633HMC-100) or the hMeDIP kit (Cat. No. AF-104-0016).

Quality control

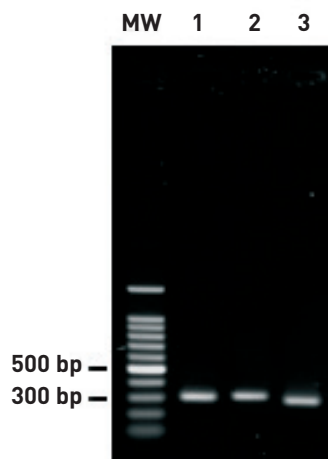


Figure 1: Agarose gel electrophoresis

MW: molecular weight marker (100 bp ladders)

1: Unmethylated DNA 300 bp (cytosine)

2: Methylated DNA 300 bp (5-mC)

3: Hydroxymethylated DNA 280 bp (5-hmC)

Storage: Store at -20°C.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.