

## Hydroxymethyl dCTP

**Full name:** 5-hydroxymethyl-2'-deoxycytidine-5'-triphosphate (Lithium Salt)

**Cat. No.** C11000002

**Format:** 300 µl

**Concentration:** 100 mM

**Formula:** C<sub>10</sub>H<sub>14</sub>Li<sub>4</sub>N<sub>3</sub>O<sub>14</sub>P<sub>3</sub>

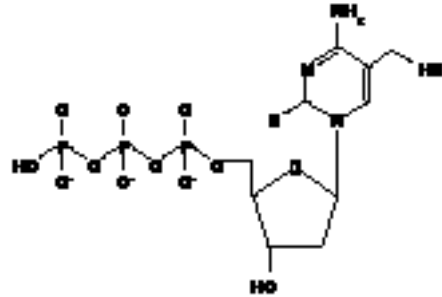
**Molecular Weight:** 520.9g/mol

**Lambdamax :** 275 nm

**Extinction coefficient :** 7.7x10<sup>3</sup> M<sup>-1</sup> x cm<sup>-1</sup> (pH 7.0)

**Storage:** Store at -20°C.

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



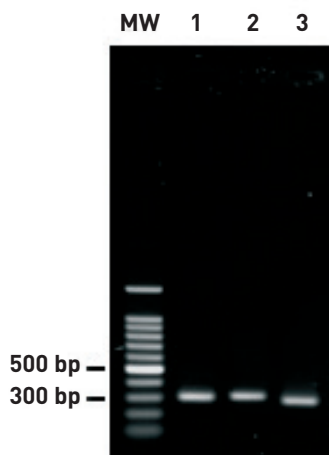
### Description:

- 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. C09010010).
- 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. C15220001) or the hMeDIP kit (Cat. No. C02010030).

### 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)