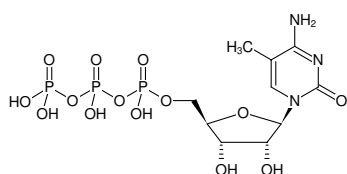


**5-Methyl-CTP**m<sup>5</sup>CTP

5-Me-CTP

5-Methylcytidine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-1138S	10 µl (100 mM)
NU-1138L	5 x 10 µl (100 mM)



Structural formula of 5-Methyl-CTP

**For research use only!****Shipping:** shipped on gel packs**Storage Conditions:** store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

**Shelf Life:** 12 months after date of delivery**Molecular Formula:** C<sub>10</sub>H<sub>18</sub>N<sub>3</sub>O<sub>14</sub>P<sub>3</sub> (free acid)**Molecular Weight:** 497.18 g/mol (free acid)**Exact Mass:** 497.00 g/mol (free acid)**CAS#:** 327174-86-7 (acid)**Purity:** ≥ 95 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 100 mM - 110 mM**pH:** 7.5 ±0.5**Spectroscopic Properties:** λ<sub>max</sub> 277 nm, ε 9.0 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**Functional influence of modified bases<sup>[1-5]</sup>Incorporation by PCR<sup>[3]</sup>**Related Products:**

HighYield T7 RNA Synthesis Kit, #RNT-101

**Selected References:**

[1] Adams *et al.* (2014) 185 CELLULAR VIABILITY AND EXPRESSION OF GREEN FLUORESCENT PROTEIN IN BOVINE FETAL FIBROBLASTS FOLLOWING TRANSFECTION OF SYNTHETIC mRNA INCLUDING MODIFIED BASES. *Reprod. Fertil. Dev.* **26**:207.

[2] Tchigvintsev *et al.* (2013) Biochemical and Structural Studies of Conserved Maf Proteins Revealed Nucleotide Pyrophosphatases with a Preference for Modified Nucleotides. *Chem. Biol. Oxford U.K.* **20**:1386.

[3] Wong *et al.* (1997) A novel method for producing partial restriction digestion of DNA fragments by PCR with 5-methyl-CTP. *Nucleic Acids Res.* **25**:4169.

[4] Kormann *et al.* (2011) Expression of therapeutic proteins after delivery of chemically modified mRNA in mice. *Nature Biotechnology* **29**:154.

[5] Warren *et al.* (2010) Highly efficient reprogramming to pluripotency and directed differentiation of human cells with synthetic modified mRNA. *Cell Stem Cell* **7** (5):618.