

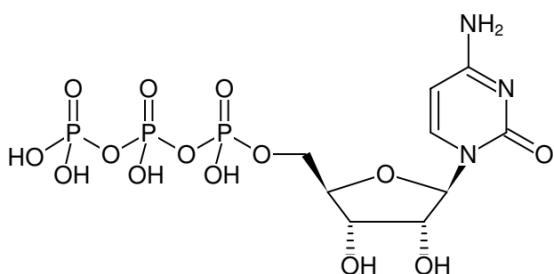
# DATA SHEET



## CTP Solid (>98%)

Cytidine - 5'-triphosphate, Sodium salt

Cat. N°.	Amount
□ NUC-204S	1 g
□ NUC-204M	10 g
□ NUC-204L	100 g



Structural formula of CTP Solid

**For *in vitro* use only!**

**Shipping:**

Shipped on blue ice

**Storage Conditions:**

Store at -20 °C

**Additional Storage Conditions:**

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

**Shelf Life:**

12 months

**Molecular Formula:**

C<sub>9</sub>H<sub>16</sub>N<sub>3</sub>O<sub>14</sub>P<sub>3</sub> (free acid)

**Molecular Weight:**

483.16 g/mol (free acid)

**CAS#:**

36051-68-0

**Purity:**

≥ 95 % (HPLC)

**Form:**

lyophilised

**Spectroscopic Properties:**

λ<sub>max</sub> = 271 nm; ε = 8.9 L mmol<sup>-1</sup>.cm<sup>-1</sup> (Tris-HCl pH 7.0)

**Applications:**

Physiological role in coronary artery disease<sup>[1]</sup>

Physiocal role in lipid metabolism<sup>[2]</sup>

Physiological role in farnesol induced apoptosis<sup>[3]</sup>

**Specific Ligands:**

CTP synthase<sup>[4]</sup>

Phosphocholine cytidyltransferase alpha<sup>[2]</sup>

**Ligand for purinergic receptors:**

P2Y6<sup>[5]</sup>

P2X3<sup>[6]</sup>

**Quality Control Specifications:**

In vitro transcription (T7 RNA polymerase): visible RNA fragments after 5 min incubation, DNases, RNases, Nicking Activity: not detectable, Proteases: not detectable.

**Selected References:**

[1] Lui et al. (2010) Evaluation of CT perfusion in setting of cerebral ischemia:patterns and pitfalls. American Journal of Neuroradiology **31**:1552.

[2] Luoma (2010) Gene activation regresses arteriosclerosis, promotes health, and enhances longevity. Lipids in health and disease **9**:67.

[3] Joo et al. (2010) Molecular mechanisms involved in farnesol-induced apoptosis. Cancer letters **287**:123.

[4] Cabeen et al. (2010) A metabolic assembly line in bacteria. Nature Cell Biology **12**:731.

[5] Jayasekara et al. (2013) 4-Alkoxyimino-cytosine nucleotides: tethering approaches to molecular probes for the P2Y6 receptor. Med Chem Comm. **4**(8):1156.

[6] Garzia-Guzman et al. (1997) Molecular characterization and pharmacological properties of the human P2X3 purinoreceptor. Mol. Brain Res. **47**(1):59.

[7] Spangler et al. (2011) Interaction of the diguanylate cyclase YdeH of Escherichia coli with 2', (3')-substituted purine and pyrimidine nucleotides. J. Pharmacol. Exp. Ther. **336**(1):234