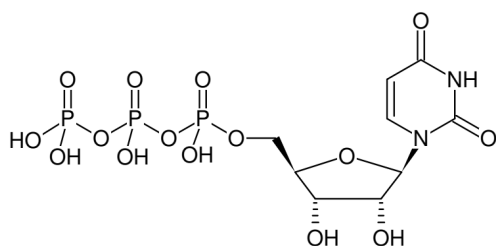


DATA SHEET

**UTP Solid (>90%)**

Uridine - 5' - triphosphate, Sodium salt

Cat. Nº.	Amount
<input type="checkbox"/> NUC-206S	1 g
<input type="checkbox"/> NUC-206M	10 g
<input type="checkbox"/> NUC-206L	100 g



Structural formula of UTP 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:C₉H₁₅N₂O₁₅P₃ (free acid)**Molecular Weight:**

484.14 g/mol (free acid)

CAS#:

19817-92-6

Purity:

≥ 90 % (HPLC)

Form:

lyophilised

Spectroscopic Properties: $\lambda_{\max} = 262 \text{ nm}$; $\epsilon = 9.8 \text{ L mmol}^{-1} \cdot \text{cm}^{-1}$ (Tris-HCl pH 7.0)**Applications:**Activation of purinergic receptors^[1,2,3,4]Cardioprotection against hypoxic damage^[2]Enzyme kinetic parameters^[5]Phosphorylation of EGF-receptor via purinergic receptors^[3]Stimulation of neurogenesis and dopaminergic neurons^[6]**Specific Ligands:**Enterovirus 71 3D RNA polymerase^[7]Ligand for purinergic receptors:P2X1^[4]P2Y2^[7,8,9]P2Y4^[8]P2Y6^[8]**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] Raqeeb et al. (2011) Purinergic P2Y2 receptors mediate rapid Ca²⁺ mobilization, membrane hyperpolarization and nitric oxide production in human vascular endothelial cells. *Cell Calcium* **49**:240.

[2] Golan et al. (2011) Extracellular nucleotide derivatives protect cardiomyocytes against hypoxic stress. *Biochemical Pharmacology* **81**:1219.

[3] Boucher et al. (2011) Distinct activation of epidermal growth factor receptor by UTP contributes to epithelial cell wound repair. *American Journal Pathology* **178**:1092.

[4] Sugihara et al. (2011) Dual signaling pathway of arterial constriction by extracellular uridine-5-triphosphate in the rat. *J. Pharmacological Sciences (Japan)* **115**:293.

[5] Ma et al. (2011) Molecular cloning and analysis of the UDP glucose pyrophosphorylase in *Streptococcus equi* subsp. *Zooepidemicus*. *Molecular Biology Reports* **38**:2751.

[6] Delic et al. (2011) Nucleotides affect neurogenesis and dopaminergic differentiation of mouse fetal midbrain-derived neural precursor cells. *Purinergic Signalling* **6**:417.

[7] Jiang et al. (2011) Biochemical characterization of enterovirus 71 3D RNA polymerase. *Biochim. Biophys. Acta, Gene Regulatory Mechanisms* **1809**:211.

[8] Pendergast et al. (2001) Synthesis and P2Y receptor activity of a series of uridine dinucleoside 5'-polyphosphates. *Bioorg. Med. Chem. Lett.* **11 (2)**:157.

[9] Shaver et al. (1997) 4-substituted uridine 5'-triphosphates as agonists of the P2Y2 purinergic receptor. *Nucleosides and Nucleotides* **16 (7)**:1099.