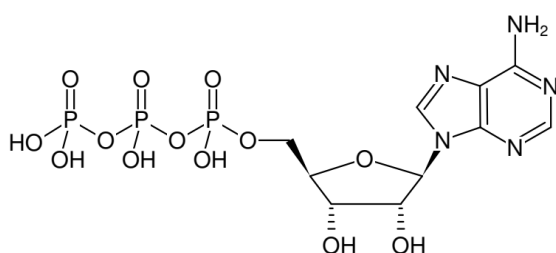


DATA SHEET

**ATP Solid (>98%)**

Adenosine - 5'-triphosphate, Sodium salt

| Cat. Nº. | Amount |
|-----------------------------------|--------|
| <input type="checkbox"/> NUC-2035 | 1 g |
| <input type="checkbox"/> NUC-203M | 10 g |
| <input type="checkbox"/> NUC-203L | 100 g |



Structural formula of ATP 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:C₁₀H₁₆N₅O₁₃P₃ (free acid)**Molecular Weight:**

507.18 g/mol (free acid)

Exact Mass:

507.00 g/mol (free acid)

CAS#:

51963-61-2

Purity:

≥ 98 % (HPLC)

Form:

lyophilised

Spectroscopic Properties:λ_{max} = 259 nm; ε = 15.1 mmol⁻¹.cm⁻¹ (Tris-HCl pH 7.0)**Applications:**ATP-sensitive calcium channels^[1]V-ATPases (cellular proton pumps)^[2]ATP-coupled chromatin remodelling^[3]ATP-binding cassette transporters^[4]ATP-grasp enzymes^[5]

Agonistic ligand, mainly for nucleoside receptor A1 Nucleoside-triphosphates can be converted by different membranebound phosphatases into nucleosides acting as nucleoside receptor ligands.

Specific Ligands:Ligand for purinergic receptors:P2X1-P2X3^[6,7]P2X1/4^[8]P2X4^[7]P2X7^[9,10,11]P2X1 - P2X7^[12]P2Y1^[10,14]P2Y2^[13,14]P2Y1^[14]**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] Wang et al. (2011) The biological effect of endogenous sulfur dioxide in the cardiovascular system. *Eur. J. Pharmacol.* **670** (1):1.
 [2] Scott et al. (2011) Duelling functions of the V-ATPase. *EMBO J.* **30** (20):4113.

[3] Erdel et al. (2011) Chromatin remodelling in mammalian cells by ISWI-type complexes—where, when and why? *FEBS J.* **278** (19):3608.

[4] Gatti et al. (2011) Novel insights into targeting ATP-binding cassette transporters for antitumor therapy. *Curr. Med. Chem.* **18** (27):4237.

[5] Fawaz et al. (2011) The ATP-grasp enzymes. *Bioorg. Chem.* **39** (5):185.

[6] Lambertucci et al. (2015) Medicinal chemistry of P2X receptors: Agonists and orthosteric antagonists. *Curr. Med. Chem.* **22** (7):915.

[7] Ralevic (2015) P2X receptors in the cardiovascular system and their potential as therapeutic targets in disease. *Curr. Med. Chem.* **22** (7):851.

[8] Harhun et al. (2014) ATP-evoked sustained vasoconstrictions mediated by heteromeric P2X1/4 receptors in cerebral arteries. *Stroke* **45** (8):2444.