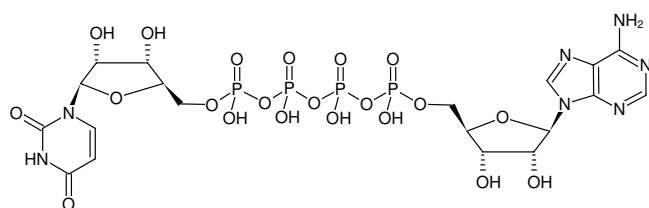


**AP₄U**P¹-(5'-Adenosyl) P⁴-(5'-uridyl) tetraphosphate, Sodium salt

Cat. No.	Amount
NU-528S	150 µl (10 mM)
NU-528L	5 x 150 µl (10 mM)

Structural formula of AP₄U**For general laboratory use.****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:** C₁₉H₂₇N₇O₂₁P₄ (free acid)**Molecular Weight:** 813.35 g/mol (free acid)**Exact Mass:** 813.02 g/mol (free acid)**CAS#:** 10527-48-7**Purity:** ≥ 95 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 10 mM - 11 mM**pH:** 7.5 ± 0.5**Spectroscopic Properties:** λ_{max} 260 nm, ε 25.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Applications:**Synthesis by mutated enzyme H96G-Fhit^[1]Formation by UTP-glucose-1-phosphate uridylyltransferase^[2]Synthesis by pyrococcus furiosus DNA ligase^[3]TUNEL^[3]Effector of Phosphotransferase^[4]Inhibitor of Uridine Kinase^[5]Vasoregulator through P2X₁, P2Y₂ and P2Y₄ receptors^[6]**Selected References:**

[1] Huang *et al.* (2004) Engineering human Fhit, a diadenosine triphosphate hydrolase, into an efficient dinucleoside polyphosphate synthase. *J. Am. Chem. Soc.* **126** (31):9548.

[2] Guranowski *et al.* (2004) Uridine 5'-polyphosphates (p4U and p5U) and uridine (5')polyphospho (5')nucleosides (Up (n)Ns) can be synthesized by UTP:glucose-1-phosphate uridylyltransferase from *Saccharomyces cerevisiae*. *FEBS Lett.* **561** (1-3):83.

[3] Günther *et al.* (2002) Thermostable *Pyrococcus furiosus* DNA ligase catalyzes the synthesis of (di)nucleoside polyphosphates. *Extremophiles* **6** (1):45.

[4] Marques *et al.* (1998) IMP-GMP 5'-nucleotidase from rat brain: activation by polyphosphates. *J. Neurochem.* **71** (3):1241.

[5] Cheng *et al.* (1986) Homogeneous uridine kinase from Ehrlich ascites tumor: substrate specificity and inhibition by bisubstrate analogs. *Mol. Pharmacol.* **30** (2):159.

[6] Jankowski *et al.* (2005) Uridine adenosine tetraphosphate: a novel endothelium-derived vasoconstrictive factor. *Nature Medicine* **11** (2):223.