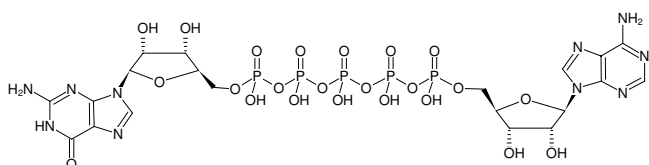


**AP₅G**P¹-(5'-Adenosyl) P⁵-(5'-guanosyl) pentaphosphate, Triethylammonium salt

Cat. No.	Amount
NU-504S	50 µl (10 mM)
NU-504L	5 x 50 µl (10 mM)

Structural formula of AP₅G**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:** C₂₀H₂₉N₁₀O₂₃P₅ (free acid)**Molecular Weight:** 932.37 g/mol (free acid)**Exact Mass:** 932.01 g/mol (free acid)**CAS#:** 56983-24-5**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} 259 nm, ε 27.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Applications:**Substrate replacement at UMP-CMP kinase^[1]Crystal structure of complex with GMP kinase^[2]Vasoconstriction via activation of P2X-receptors^[3]Activation of P2X receptor ion channels^[4]**Specific Ligands:**Binding to purinoreceptors P2Y1 and P2X^[5]Binding to purinoreceptors P2X3 and rP2X1^[6]**Selected References:**

[1] Topalis *et al.* (2007) Nucleotide binding to human UMP-CMP kinase using fluorescent derivatives – a screening based on affinity for the UMP-CMP binding site. *FEBS J.* **274** (14):3704.

[2] Hible *et al.* (2006) Crystal structures of GMP kinase in complex with ganciclovir monophosphate and Ap5G. *Biochimie* **88**:1157.

[3] van der Giet *et al.* (2001) The critical role of adenosine and guanosine in the affinity of dinucleoside polyphosphates to P (2X)-receptors in the isolated perfused rat kidney. *Br. J. Pharmacol.* **132** (2):467.

[4] Lewis *et al.* (2000) Effects of diadenosine polyphosphates (Ap (n)As) and adenosine polyphospho guanosines (Ap (n)Gs) on rat mesenteric artery P2X receptor ion channels. *Br. J. Pharmacol.* **129** (1):124.

[5] van der Giet *et al.* (2002) Effects of dinucleoside polyphosphates on regulation of coronary vascular tone. *Eur. J. Pharmacol.* **448** (2-3):207.

[6] Cinkilic *et al.* (2001) Selective agonism of group I P2X receptors by dinucleotides dependent on a single adenine moiety. *J. Pharmacol. Exp. Ther.* **299** (1):131.

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**AP₅G**P¹-(5'-Adenosyl) P⁵-(5'-guanosyl) pentaphosphate, Triethylammonium salt

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