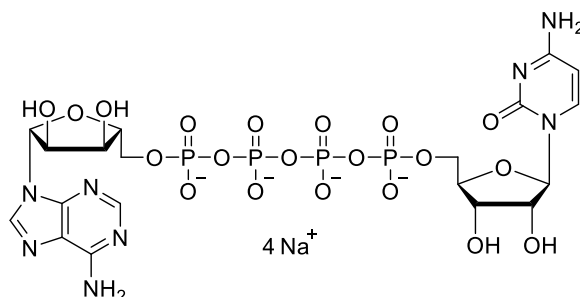


Technical Information about P¹-(5'-Adenosyl)- P⁴-(5'-cytidyl)-tetrphosphate (Ap₄C / Cp₄A)

Update: April 15, 2019 нч



Abbreviation: Ap₄C / Cp₄A

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat.No.
C ₁₉ H ₂₈ N ₈ O ₂₀ P ₄ (free acid)	[1352921-13-1]	812.4 (free acid)	λ _{max} 262 nm / ε 20400 / pH 7	A 178

Name: P¹- (5'- Adenosyl)- P⁴- (5'- cytidyl)- tetrphosphate

Syn.: Adenosine (5)- cytidine (5)- tetrphosphate / Adenosine- cytidine- tetrphosphate / P¹- (5'- Cytidyl)- P⁴- (5'- adenosyl)- tetrphosphate

Description: Ap₄C is a dinucleoside polyphosphate containing both, a purine nucleobase as well as a pyrimidine nucleobase moiety.

Properties: Ap₄C exhibits agonist activity at the human P2Y₁ and P2Y₂ receptors (Shaver et al. 2005).

Specification: Lyophilized or crystallized sodium salt. The free acid or other salt forms are available upon request. Equal concentrations of Ap₄C can appear very different in volume due to sensitivity of the lyophilized form to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 95% (HPLC / UV / 262 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Ap₄C has good solubility in water and aqueous buffers (> 12 mM, limits have not been determined). Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

Stability and Storage: Ap₄C has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Please keep in mind that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product. Our products are designed, developed and sold for research purposes only. They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities.

Not for drug, household or related uses!

Selected References for Ap₄C:

Shaver, S.R.; Rideout, J.L.; Pendergast, W.; Douglass, J.G.; Brown, E.G.; Boyer, J.L.; Patel, R.I.; Redick, C.C.; Jones, A.C.; Picher, M.; Yerxa, B.R., *Purinergic Signal.*, **1**, 183 - 191 (2005): "Structure-Activity Relationships of Dinucleotides: Potent and Selective Agonists of P2Y Receptors"

Marques, A.F.; Teixeira, N.A.; Gambaretto, C.; Sillero, A.; Sillero, M.A., *J. Neurochem.*, **71**, 1241 - 1250 (1998): "IMP-GMP 5'-Nucleotidase from Rat Brain: Activation by Polyphosphates"