

PRODUCT INFORMATION



2'-Deoxy-3'-O-(N'-methylantraniloyl)adenosine-5'-O-triphosphate (sodium salt)

Item No. 38457

Formal Name: ((2R,3S,5R)-5-(6-amino-9H-purin-9-yl)-3-((2-(methylamino)benzoyl)oxy)tetrahydrofuran-2-yl)methyl triphosphate, tetrasodium salt

Synonyms: 2'-deoxy-3'-MANT-ATP, MANT-dATP

MF: $C_{18}H_{19}N_6O_{13}P_3 \cdot 4Na$

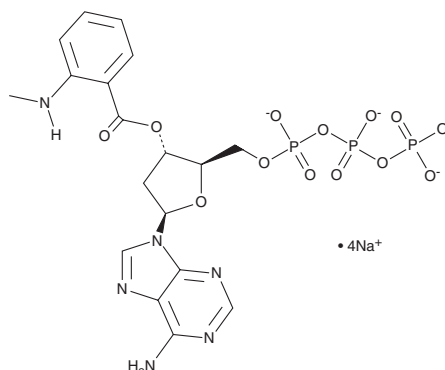
FW: 712.3

Purity: $\geq 95\%$

Supplied as: A solution in water

Storage: $-80^{\circ}C$

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

2'-Deoxy-3'-O-(N'-methylantraniloyl)adenosine-5'-O-triphosphate is a fluorescent derivative of ATP.^{1,2} It is an inhibitor of the calmodulin-dependent *B. anthracis* edema factor adenylyl cyclase (AC) toxin ($K_i = 40$ nM). 2'-Deoxy-3'-O-(N'-methylantraniloyl)adenosine-5'-O-triphosphate (100 μ M) decreases inositol phosphate formation in CHO-K1 cells expressing the human purinergic P2Y₁₂ receptor.³ A related derivative, 2'(3')-MANT-ATP (Item No. 38469), displays an emission maximum of 446 nm upon excitation at 350 nm.⁴

References

1. Ni, Q., Shaffer, J., and Adams, J.A. Insights into nucleotide binding in protein kinase A using fluorescent adenosine derivatives. *Protein Sci.* **9**(9), 1818-1827 (2000).
2. Suryanarayana, S., Wang, J.L., Richter, M., *et al.* Distinct interactions of 2'- and 3'-O-(N-methyl) anthraniloyl-isomers of ATP and GTP with the adenylyl cyclase toxin of *Bacillus anthracis*, edema factor. *Biochem. Pharmacol.* **78**(3), 224-230 (2009).
3. Schmidt, P., Ritscher, L., Dong, E.N., *et al.* Identification of determinants required for agonistic and inverse agonistic ligand properties at the ADP receptor P2Y₁₂. *Mol. Pharmacol.* **83**(1), 256-266 (2013).
4. Hiratsuka, T. New ribose-modified fluorescent analogs of adenine and guanine nucleotides available as substrates for various enzymes. *Biochim. Biophys. Acta* **742**(3), 496-508 (1983).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/15/2026

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM