

PRODUCT INFORMATION

2'(3')-O-(N'-Methylanthraniloyl)guanosine-5'-O-triphosphate (sodium salt)

Item No. 38469

Formal Name: 2'(or 3')-[2-(methylamino) benzoate] guanosine 5'-(tetrahydrogen triphosphate), tetrasodium salt

Synonym: 2'(3')-MANT-GTP

MF: C₁₈H₁₉N₆O₁₅P₃ • 4Na

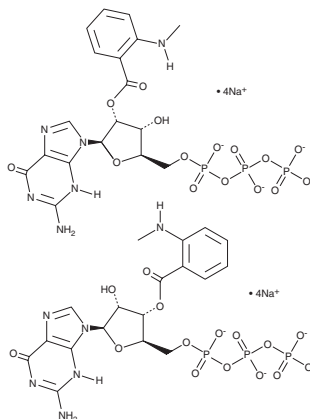
FW: 744.3

Purity: ≥95% (mixture of isomers)

Supplied as: A solution in water

Storage: -80°C

Stability: ≥4 years



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

Description

2'-O-(N-Methylanthraniloyl)guanosine-5'-O-triphosphate (2'-MANT-GTP) and 3'-MANT-GTP are fluorescent GTP derivatives, which undergo spontaneous isomerization.¹ 2'(3')-MANT-GTP displays an emission maximum of 442 nm upon excitation at 350 nm.⁴ It inhibits mammalian adenylyl cyclase (AC1), AC2, and AC5 (K_is = 90, 610, and 53 nM, respectively), *B. pertussis* AC toxin CyaA (K_is = 5.9 and 16 μM, in the presence of manganese and magnesium, respectively), and *B. anthracis* AC toxin edema factor (K_is = 2.49 and 4.7 μM in the presence of manganese and magnesium, respectively).¹⁻³

References

1. Pinto, C., Lushington, G.H., Richter, M., *et al.* Structure-activity relationships for the interactions of 2'- and 3'-(O)-(N-methyl)anthraniloyl-substituted purine and pyrimidine nucleotides with mammalian adenylyl cyclases. *Biochem. Pharmacol.* **82**(4), 358-370 (2011).
2. Göttle, M., Dove, S., Steindel, P., *et al.* Molecular analysis of the interaction of *Bordetella pertussis* adenylyl cyclase with fluorescent nucleotides. *Mol. Pharmacol.* **72**(3), 526-535 (2007).
3. Taha, H.M., Schmidt, J., Göttle, M., *et al.* Molecular analysis of the interaction of anthrax adenylyl cyclase toxin, edema factor, with 2'(3')-O-(N-(methyl)anthraniloyl)-substituted purine and pyrimidine nucleotides. *Mol. Pharmacol.* **75**(3), 693-703 (2009).
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.

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