

PRODUCT INFORMATION

2'(3')-O-Anthraniloylguanosine-5'-O-triphosphate (sodium salt)

Item No. 38812

Formal Name: 2' or 3'-(2-aminobenzoate) guanosine 5'-(tetrahydrogen triphosphate), tetrasodium salt

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

MF: C₁₇H₁₇N₆O₁₅P₃ • 4Na

FW: 730.2

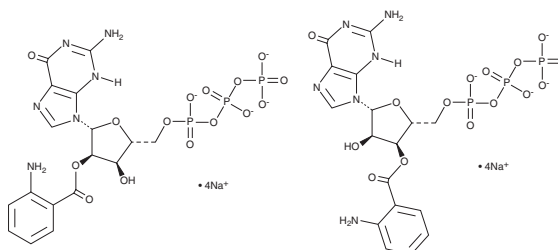
Purity: ≥95% (mixture of isomers)

Ex./Em. Max: 330/428 nm

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'(3')-O-Anthraniloylguanosine-5'-O-triphosphate (2'-ANT-GTP) and 3'-ANT-GTP are fluorescent GTP derivatives, which undergo spontaneous isomerization.¹ 2'(3')-ANT-GTP displays an emission maximum of 428 nm upon excitation at 330 nm in water.² It inhibits mammalian adenylyl cyclase 1 (AC1; K_i = 10 nM in the presence of manganese), *B. anthracis* AC toxin edema factor (K_is = 4.1 and 13 μM in the presence of manganese and magnesium, respectively), and *B. pertussis* AC toxin CyaA (K_i = 29 μM in the presence of manganese).^{1,3,4}

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. 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).
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. 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).

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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