

# PRODUCT INFORMATION



## 2'(3')-O-Anthraniloyladenine-5'-O-triphosphate (sodium salt)

Item No. 38546

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

**Synonym:** 2'(3')-ANT-ATP

**MF:** C<sub>17</sub>H<sub>17</sub>N<sub>6</sub>O<sub>14</sub>P<sub>3</sub> • 4Na

**FW:** 714.2

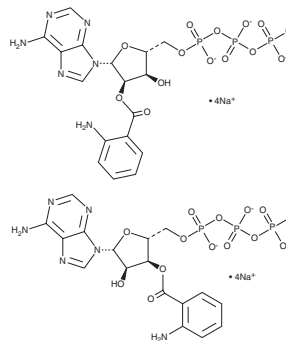
**Purity:** ≥95% (mixture of isomers)

**Ex./Em. Max:** 330/428 nm

**Supplied as:** A solution in water

**Storage:** -80°C

**Stability:** ≥2 years



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

### Description

2'(3')-O-Anthraniloyladenine-5'-O-triphosphate (2'-ANT-ATP) and 3'-ANT-ATP are fluorescent ATP derivatives, which undergo spontaneous isomerization.<sup>1</sup> 2'(3')-ANT-ATP displays an emission maximum of 428 nm upon excitation at 330 nm in water.<sup>2</sup> It inhibits mammalian adenylyl cyclase (AC1, AC2, and AC5 (K<sub>i</sub>s = 130, 640, and 120 nM, respectively), *B. pertussis* AC toxin CyaA (K<sub>i</sub>s = 1.3 and 20 μM, in the presence of manganese and magnesium, respectively), *B. anthracis* AC toxin edema factor (K<sub>i</sub>s = 0.44 and 5.15 μM in the presence of manganese and magnesium, respectively), and *E. coli* recombinase A (RecA; K<sub>i</sub> = 6.3 μM),<sup>1, 3-5</sup>

### 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. 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).
4. 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).
5. Karasaki, Y. and Higashi, K. Inhibition of ATPase activity of the recA protein by ATP ribose-modified analogs. *Arch. Biochem. Biophys.* **233(2)**, 796-799 (1984).

#### 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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