

PRODUCT INFORMATION

2'(3')-O-(N'-Methylantraniloyl)adenosine-5'-O-diphosphate (sodium salt)

Item No. 38466

Formal Name: 2'(or 3')-[2-(methylamino) benzoate] adenosine 5'-(trihydrogen diphosphate), trisodium salt

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

MF: C₁₈H₁₉N₆O₁₁P₂ • 3Na

FW: 626.3

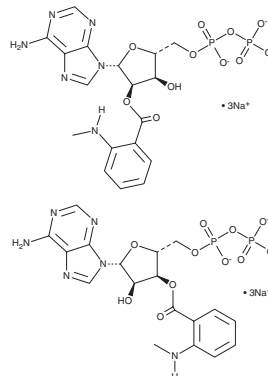
Purity: ≥95% (a mixture of isomers)

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'-Methylantraniloyl)adenosine-5'-O-diphosphate (2'-MANT-ADP) and 3'-MANT-ADP are fluorescent ADP derivatives, which undergo spontaneous isomerization.¹ 2'(3')-MANT-ADP selectively inhibits recombinant mammalian adenylyl cyclase 1 (AC1), AC2, AC5, and AC6 (K_is = 250, 1,500, 270, and 380 nM, respectively), bovine lung soluble guanylyl cyclase (sGC; K_i = 400 nM), and *B. anthracis* edema factor AC toxin (K_i = 450 nM) over rat testis soluble AC (sAC) and *B. pertussis* AC toxin (K_is = 15 and 18 μM, respectively). Formation of 2'(3')-MANT-ADP from 2'(3')-MANT-ATP (Item No. 38467) has been used to quantify the activity of the ATPase kinesin.² A related derivative, 2'(3')-MANT-ATP (Item No. 38469), displays an emission maximum of 446 nm upon excitation at 350 nm.³

References

1. Gille, A., Lushington, G.H., Mou, T.-C., *et al.* Differential inhibition of adenylyl cyclase isoforms and soluble guanylyl cyclase by purine and pyrimidine nucleotides. *J. Biol. Chem.* **279**(19), 19955-19969 (2004).
2. Ma, Y.-Z. and Taylor, E.W. Mechanism of microtubule kinesin ATPase. *Biochemistry* **34**(40), 13242-13251 (1995).
3. 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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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