

PRODUCT INFORMATION

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

Item No. 38468

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

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

MF: C₁₈H₁₉N₆O₁₂P₂ • 3Na

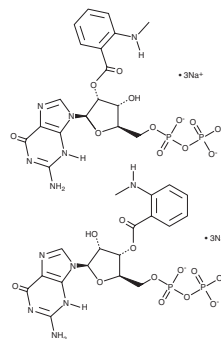
FW: 642.3

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-diphosphate (2'-MANT-GDP) and 3'-MANT-GDP are fluorescent GDP derivatives, which undergo spontaneous isomerization.¹ 2'(3')-MANT-GDP selectively inhibits recombinant mammalian adenylyl cyclase 1 (AC1), AC2, AC5, AC6, and bovine lung soluble guanylyl cyclase (sGC; K_s = 430, 2,600, 510, 320, and 4,200 nM, respectively) over *B. anthracis* edema factor AC toxin, rat testis soluble AC (sAC), and *B. pertussis* AC toxin (K_s = 37, 48, and 60 μM, respectively). 2'(3')-MANT-GDP has been used to quantify guanine nucleotide exchange of GTPases.² A related derivative, 2'(3')-MANT-GTP (Item No. 38469), displays an emission maximum of 442 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. Tan, Y. and Sun, Q. A mant-GDP dissociation assay to compare the guanine nucleotide binding preference of small GTPases. *Bio. Protoc.* **11**(2), e3886 (2021).
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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