Print Date: Aug 20th 2021

Certificate of Analysis

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Product Name: **DMNPE-caged ATP diammonium salt** **Catalog No.: 5157** **Batch No.: 2**

IUPAC Name: Adenosine 5'-triphosphate *P*"-[1-(4,5-dimethoxy-2-nitrophenyl)ethyl] ester diammonium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{27}N_6O_{17}P_3.2NH_3$.

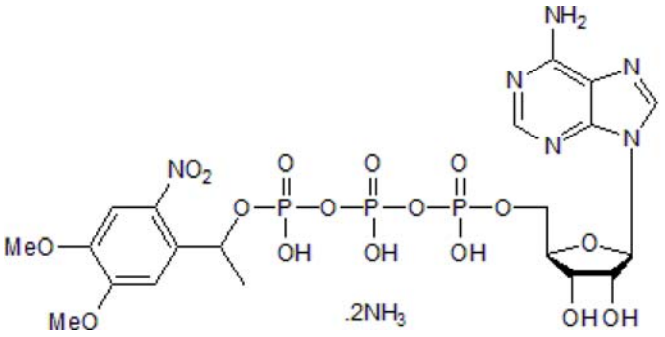
Batch Molecular Weight: 750.44

Physical Appearance: Pale yellow solid

Solubility: water to 100 mM
DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	32.01	4.43	14.93
Found	31.64	4	15.09

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Product Information

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IUPAC Name: Adenosine 5'-triphosphate *P*"-[1-(4,5-dimethoxy-2-nitrophenyl)ethyl] ester diammonium salt

Description:

DMNPE-caged ATP diammonium salt is a DMNPE-caged ATP; quantum yield is 0.07. Brain penetrant.

Physical and Chemical Properties:

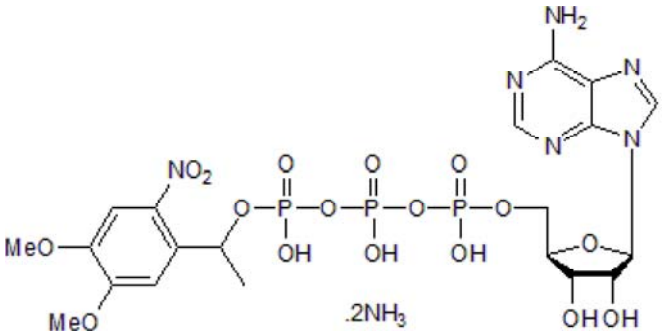
Batch Molecular Formula: $C_{20}H_{27}N_6O_{17}P_3.2NH_3$.

Batch Molecular Weight: 750.44

Physical Appearance: Pale yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 100 mM
DMSO to 50 mM

Solutions may appear hazy.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Jensen *et al* (2017) Detailed characterization of the in vitro pharmacological and pharmacokinetic properties of *N*-(2-hydroxybenzyl) -2,5-dimethoxy-4-cyanophenylethylamine (25CN-NBOH), a highly selective and brain-penetrant 5-HT2A receptor agonist. J.Pharmacol.Exp.Ther. ***36*** 441. PMID: 28360333.

Ellis-Davies (2007) Caged compounds: photorelease technology for control of cellular chemistry and physiology. Nat.Methods ***4*** 619. PMID: 17664946.