

Product Name: TNP-ATP triethylammonium salt

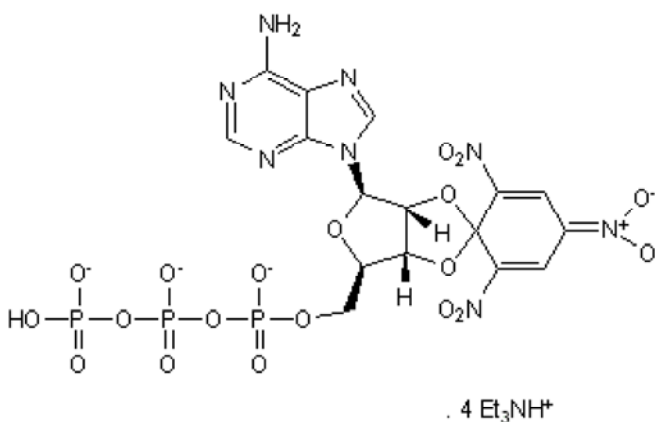
Catalog No.: 2464

Batch No.: 11

IUPAC Name: 2',3'-O-(2,4,6-Trinitrophenyl)adenosine-5'-triphosphate tetra(triethylammonium) salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₃N₈O₁₉P₃.4C₆H₁₆N
Batch Molecular Weight: 1123.04
Physical Appearance: Orange liquid
Solubility: Soluble in water (supplied pre-dissolved at a concentration of 10mM)
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.7% purity
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

High affinity, selective P2X receptor antagonist. Inhibits ATP-induced currents in cells expressing P2X₁, P2X₃ and heteromeric P2X_{2/3} receptors with IC₅₀ values of 6, 0.9 and 7 nM respectively. Displays 1000-fold selectivity over P2X₂, P2X₄ and P2X₇.

Physical and Chemical Properties:

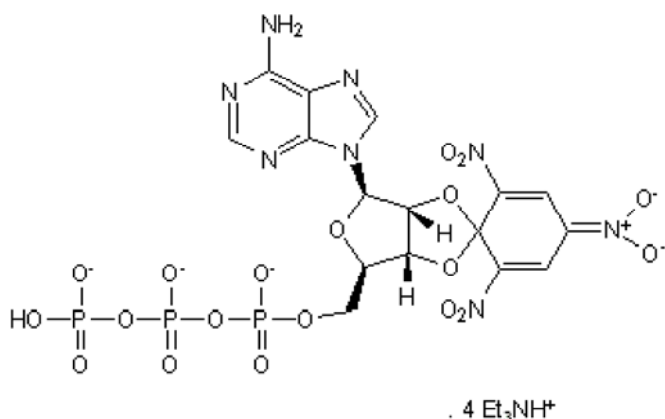
Batch Molecular Formula: C₁₆H₁₃N₈O₁₉P₃.4C₆H₁₆N

Batch Molecular Weight: 1123.04

Physical Appearance: Orange liquid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Desiccate at -20°C

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:

Soluble in water (supplied pre-dissolved at a concentration of 10mM)

This product is supplied dissolved in water at a concentration of 10 mM

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:

Spelta et al (2002) Kinetics of antagonist actions at rat P2X_{2/3} heteromeric receptors. *Br.J.Pharmacol.* **135** 1524. PMID: 11906966 .

Burgard et al (2000) Competitive antagonism of recombinant P2X_(2/3) receptors by 2', 3'-O-(2,4,6-trinitrophenyl) adenosine 5'-triphosphate (TNP-ATP). *Mol.Pharmacol.* **58** 1502. PMID: 11093790.

Lewis et al (1998) 2',3'-O-(2,4,6-trinitrophenyl) adenosine 5'-triphosphate (TNP-ATP) - a nanomolar affinity antagonist at rat mesenteric artery P2X receptor ion channels. *Br.J.Pharmacol.* **124** 1463. PMID: 9723959.

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