

# PRODUCT INFORMATION



## Adenosine-5'-O-(3-thiotriphosphate) (sodium salt)

Item No. 38635

CAS Registry No.: 88453-52-5

Formal Name: adenosine 5'-(trihydrogen diphosphate),  
monoanhydride with phosphorothioic acid,  
tetrasodium salt

Synonyms: Adenosine 5'-(γ-thio)-triphosphate, ATPγS

MF: C<sub>10</sub>H<sub>12</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub>S • 4Na

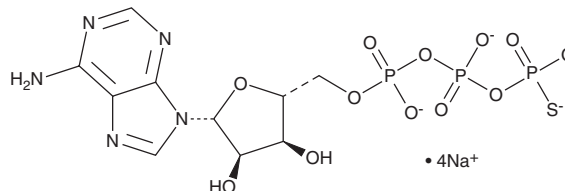
FW: 611.2

Purity: ≥95%

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

Adenosine-5'-O-(3-thiotriphosphate) (ATPγS) is an agonist of the purinergic P2Y<sub>11</sub> receptor.<sup>1</sup> It induces inositol phosphate accumulation in CHO-K1 cells expressing the human or canine P2Y<sub>11</sub> receptor (EC<sub>50</sub>s = 1.2 and 19.3 μM, respectively). ATPγS (10 μM) inhibits Junin virus-induced increases in mRNA encoding bone morphogenetic protein 6 (BMP6) and reduces particle forming units (PFUs) in Junin virus-infected primary rat osteoblasts.<sup>2</sup> It induces insulin secretion by MIN6 pancreatic β-cells when used at a concentration of 25 μM.<sup>3</sup>

### References

1. Qi, A.D., Zambon, A.C., Insel, P.A., *et al.* An arginine/glutamine difference at the juxtaposition of transmembrane domain 6 and the third extracellular loop contributes to the markedly different nucleotide selectivities of human and canine P2Y<sub>11</sub> receptors. *Mol. Pharmacol.* **60(6)**, 1375-1382 (2001).
2. Ayala-Peña, V.B., Armiento, M.N., Fernández Bell Fano, P.M., *et al.* Infection of rat osteoblasts with junin virus promotes the expression of bone morphogenetic protein 6, an osteogenic differentiation inducer. *Intervirology* **62(1)**, 1-8 (2019).
3. Hauke, S., Rada, J., Tihanyi, G., *et al.* ATP is an essential autocrine factor for pancreatic β-cell signaling and insulin secretion. *Physiol. Rep.* **10(1)**, e15159 (2022).

#### 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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