

PRODUCT INFORMATION



Sp-Adenosine-5'-O-(1-thiotriphosphate) (sodium salt)

Item No. 38536

Formal Name: adenosine, 5'→P''-ester with (P''S)-thiotriphosphoric acid ((HO)2P(O)OP(O)(OH)OP(O)(OH)(SH)), tetrasodium salt

Synonym: Sp-ATP-α-S

MF: C₁₀H₁₂N₅O₁₂P₃S • 4Na

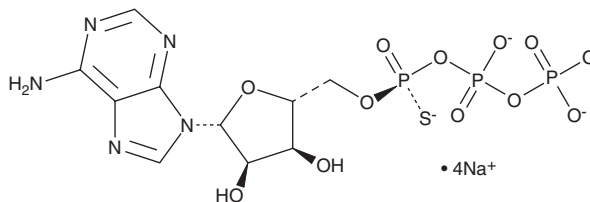
FW: 611.2

Purity: ≥95%

Supplied as: A 10 mM solution in water

Storage: -80°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Sp-Adenosine-5'-O-(1-thiotriphosphate) (Sp-ATP-α-S) is an isomer of the sulfur-containing nucleotide derivative ATP-α-S and an agonist of the purinergic P2Y₁ receptor.¹ It increases calcium mobilization in HEK293 cells expressing the P2Y₁ receptor (EC₅₀ = 9.4 nM for the human receptor). Sp-ATP-α-S inhibits ADP-induced aggregation of isolated human platelets (K_i = 4 μM).² It induces relaxation of carbamoylcholine-precontracted guinea pig taenia coli (EC₅₀ = 426 nM).³

References

1. Major, D.T., Nahum, V., Wang, Y., *et al.* Molecular recognition in purinergic receptors. 2. Diastereoselectivity of the *h*-P2Y₁-receptor. *J. Med. Chem.* **47(18)**, 4405-4416 (2004).
2. Agarwal, A.K., Tandon, N.N., Greco, N.J., *et al.* Evaluation of the binding to fixed platelets of agonists and antagonists of ADP-induced aggregation. *Thromb. Haemost.* **62(4)**, 1103-1106 (1989).
3. Burnstock, G., Cusack, N.J., and Meldrum, L.A. Effects of phosphorothioate analogues of ATP, ADP and AMP on guinea-pig taenia coli and urinary bladder. *Br. J. Pharmacol.* **82(2)**, 369-374 (1984).

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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