

Product Data Sheet

Product Name: ATP(α S), 100mM Sodium Solution

Cat. No.: GB10789

Chemical Properties

Purity	>98.50%	Extinction Coefficient	
Formula	C ₁₀ H ₁₆ N ₅ O ₁₂ P ₃ (free acid)	M.Wt	523.24(free acid)
Salt Form		Concentration	
Buffer		Storage	-20°C or below, always avoid freeze-thaw cycles.
Synonyms	Adenosine -5'-O-(1-thiotriphosphate)	Backbone	
Base Analog		Sugar Type	
Nucleotide Category			

Background

Adenosine-5'-O-(1-Thiotriphosphate)(ATP(α S)) is an ATP analog, which is obtained by mixing ATP Rp and Sp isomers in a 1:1 ratio. ATP(α S) is a potent agonist of β -cell adenylyl cyclase, P2Y₁₁ receptor, and rP2Y₁ receptor[1]. ATP(α S) was identified as a P2Y₂ and P2Y₆ receptor-specific ligand that acts as a neurotransmitter in the central nervous system (CNS) [2].

References:

[1]. Biochem. A chimeric rat brain P2Y₁ receptor tagged with GFP: high-affinity ligand recognition of adenosine diphosphates and triphosphates and selectivity identical to that of wild-type receptor. Vohringer et al. (2000). Pharmacol. 59 (7):791.

[2]. R Schäfer, G Reiser. ATP α S is a ligand for P2Y receptors in synaptosomal membranes: solubilization of [35S]ATP α S binding proteins associated with G-proteins. 1999 Apr;34(4):303-17. doi: 10.1016/s0197-0186(99)00014-5.

Caution: Product has not been fully validated for medical applications. For research use only.

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