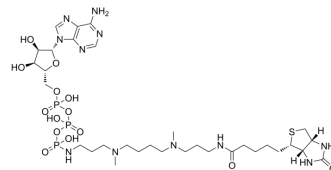


## ATP-polyamine-biotin

Cat. No.:	HY-D0183
CAS No.:	1800401-93-7
Molecular Formula:	C <sub>32</sub> H <sub>58</sub> N <sub>11</sub> O <sub>14</sub> P <sub>3</sub> S
Molecular Weight:	945.85
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 6 mg/mL (6.34 mM; Need ultrasonic and warming)					
	Preparing Stock Solutions	Solvent Concentration	Mass			
			1 mg	5 mg	10 mg	
			1 mM	1.0573 mL	5.2863 mL	10.5725 mL
			5 mM	0.2115 mL	1.0573 mL	2.1145 mL
10 mM	---	---	---			
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 7.69 mg/mL (8.13 mM); Clear solution; Need ultrasonic and warming					

### BIOLOGICAL ACTIVITY

Description	ATP-polyamine-biotin, the first cell-permeable ATP analogue, is an efficient kinase cosubstrate. ATP-polyamine-biotin promotes biotin labeling of kinase substrates in live cells <sup>[1]</sup> .
In Vitro	ATP-polyamine-biotin (APB) is incubated with PKA kinase and full-length protein substrate, myelin basic protein (MBP). Biotinylation was observed only in presence of kinase. In addition, MBP biotinylation was lost in the absence of ATP-polyamine-biotin, in presence of the kinase inhibitor staurosporine or upon incubation with acid due to cleavage of phosphoramidate bond. Biotinylated kemptide product is observed only in the presence of APB cosubstrate <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

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- Nat Med. 2018 Aug;24(8):1192-1203.

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## REFERENCES

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[1]. Fouda AE, et al. A Cell-Permeable ATP Analogue for Kinase-Catalyzed Biotinylation. Angew Chem Int Ed Engl. 2015 Aug 10;54(33):9618-21.

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

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