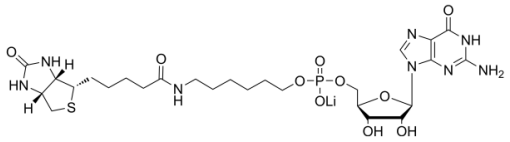
Product Data Sheet

Product Name: Biotin-7-GMP lithium solution (100 mM ± 3 mM)
Cat. No.: GC81413

Chemical Properties

Cas. No.			
Formula	$C_{26}H_{40}LiN_8O_{10}PS$	M.Wt	694.62
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

Biotin-7-GMP (5'-Biotin-G-monophosphate) lithium solution (100 mM ± 3 mM) is a 5'-biotinylated guanosine monophosphate reagent. Biotin-7-GMP lithium solution (100 mM ± 3 mM) covalently links biotin to specific positions (G bases) of RNA molecules, enabling efficient and specific purification and detection of target RNAs through the ultra-stable binding between biotin and streptavidin [1] [2].

In Vitro, Biotin-7-GMP (4-fold molar excess) lithium solution enables the in vitro transcription synthesis of 5'-biotinylated RNA_R9D-14T and RNA_mut aptamers[1]. Biotin-7-GMP (3 mM; overnight) supports the generation of 5'-end biotinylated RNA aptamers via in vitro transcription at

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37°C for use in β2-adrenoceptor binding studies[2].

References:

[1]. Bompiani KM, et al. A high affinity, antidote-controllable prothrombin and thrombin-binding RNA aptamer inhibits thrombin generation and thrombin activity. Journal of thrombosis and haemostasis: JTH. 2012 May;10(5):870-80.
[2]. Kahsai AW, et al. Conformationally selective RNA aptamers allosterically modulate the β2-adrenoceptor. Nature chemical biology. 2016 Sep;12(9):709-16.

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