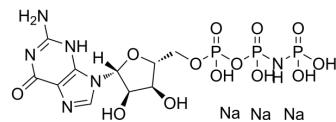


Guanylyl Imidodiphosphate trisodium

Cat. No.:	HY-100767
CAS No.:	148892-91-5
Molecular Formula:	C ₁₀ H ₁₇ N ₆ Na ₃ O ₁₃ P ₃
Molecular Weight:	591.16
Target:	Adenylate Cyclase
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Guanylyl Imidodiphosphate (Guanosine 5'-[β,γ-imido]triphosphate) trisodium is a non-hydrolysable GTP analogue, an activator of ADP-ribosylation factor (ARF) and a potent stimulator of adenylate cyclase. Imidodiphosphate trisodium can be used in protein synthesis studies ^{[1][2][3]} .
In Vitro	<p>Guanylyl Imidodiphosphate trisodium (GppNHp) (100 μM) induces the secretion of dense granules from permeabilized platelets in response to calcium ion stimulation, and GTP-Ral enhances the calcium sensitivity of permeabilized platelet dense granule secretion which is inhibited by Sec5-RBD^[1].</p> <p>Guanylyl Imidodiphosphate trisodium (GppNHp) (0.017-333 μM) causes a significant reduction in the lag time required to stimulate adenylate cyclase activity^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. Mitsunori Kawato, et al. Regulation of platelet dense granule secretion by the Ral GTPase-exocyst pathway. *J Biol Chem*. 2008 Jan 4;283(1):166-174.
- [2]. J Goldberg, et al. Structural basis for activation of ARF GTPase: mechanisms of guanine nucleotide exchange and GTP-myristoyl switching. *Cell*. 1998 Oct 16;95(2):237-48.
- [3]. C Gaudin, et al. Overexpression of Gs alpha protein in the hearts of transgenic mice. *J Clin Invest*. 1995 Apr;95(4):1676-83.

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

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