

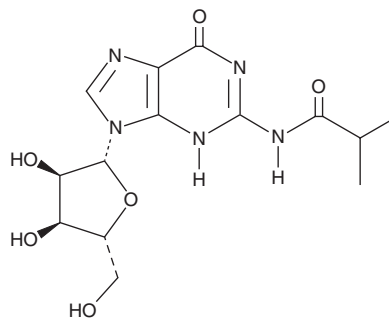
PRODUCT INFORMATION



N²-Isobutyryl Guanosine

Item No. 40283

CAS Registry No.: 64350-24-9
Formal Name: N-(2-methyl-1-oxopropyl)-guanosine
MF: C₁₄H₁₉N₅O₆
FW: 353.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

N²-Isobutyryl guanosine is supplied as a solid. A stock solution may be made by dissolving the N²-isobutyryl guanosine in the solvent of choice, which should be purged with an inert gas. N²-Isobutyryl guanosine is soluble in acetonitrile and DMSO.

Description

N²-Isobutyryl guanosine is a derivative of the nucleoside guanosine (Item No. 27702) containing an isobutyryl protecting group.¹ It is a precursor in the synthesis of hydrophobic dinucleotide cap analogs used to purify capped mRNA and photocaged 3'-S-RNAs used in the study of ribozyme-catalyzed reactions.^{1,2}

References

1. Inagaki, M., Abe, N., Li, Z., *et al.* Cap analogs with a hydrophobic photocleavable tag enable facile purification of fully capped mRNA with various cap structures. *Nat. Commun.* **14**(1), 2657 (2023).
2. Li, N.-S., Tuttle, N., Staley, J.P., *et al.* Synthesis and incorporation of the phosphoramidite derivative of 2'-O-photocaged 3'-s-thioguanosine into oligoribonucleotides: Substrate for probing the mechanism of RNA catalysis. *J. Org. Chem.* **79**(8), 3647-3652 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/09/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM