

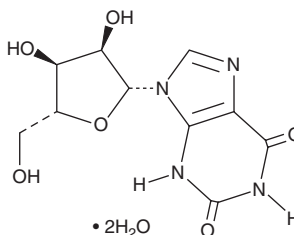
PRODUCT INFORMATION



Xanthosine (hydrate)

Item No. 39018

CAS Registry No.: 5968-90-1
MF: $C_{10}H_{12}N_4O_6 \cdot 2H_2O$
FW: 320.3
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 234, 261 nm
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Xanthosine (hydrate) is supplied as a solid. A stock solution may be made by dissolving the xanthosine (hydrate) in the solvent of choice, which should be purged with an inert gas. Xanthosine (hydrate) is soluble in DMSO and methanol.

Description

Xanthosine is a nucleoside and an intermediate in the biosynthesis of caffeine (Item No. 14118).¹ It restores glucose uptake and reverses free fatty acid-induced decreases in AMPK activation and gluconeogenesis in CC1 hepatocytes.² Xanthosine (10, 50, and 100 mg/kg) reduces fasting blood glucose levels and increases gluconeogenesis in a rat model of diabetes induced by streptozotocin (STZ; Item No. 13104).

References

1. Sato, F. Plant Alkaloid Engineering. *Comprehensive Natural Products III: Chemistry and Biology*. Liu, H.-W. and Begley, T.P., 3rd edition, Elsevier (2020).
2. Ahmed, S.A., Sarma, P., Barge, S.R., et al. Xanthosine, a purine glycoside mediates hepatic glucose homeostasis through inhibition of gluconeogenesis and activation of glycogenesis via regulating the AMPK/ FoxO1/AKT/GSK3 β signaling cascade. *Chem. Biol. Interact.* **371**, 110347 (2023).

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

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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