

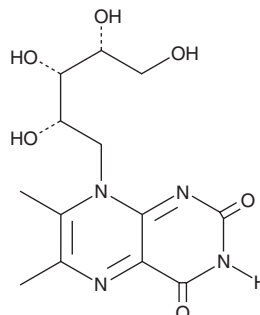
PRODUCT INFORMATION



6,7-dimethyl-8-Ribityllumazine

Item No. 23370

CAS Registry No.: 2535-20-8
Formal Name: 1-deoxy-1-(3,4-dihydro-6,7-dimethyl-2,4-dioxo-8(2H)-pteridiny)-D-ribitol
Synonyms: 6,7-Dimethyl-8-(1-D-ribityl) lumazine, 6,7-dimethyl Ribityllumazine, 6,7-dimethyl Ribolumazine, DMRL
MF: C₁₃H₁₈N₄O₆
FW: 326.3
Purity: ≥90%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive



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

Laboratory Procedures

6,7-dimethyl-8-Ribityllumazine (DMRL) is supplied as a crystalline solid. A stock solution may be made by dissolving the DMRL in the solvent of choice, which should be purged with an inert gas. DMRL is soluble in the organic solvent DMSO.

Description

DMRL is a natural chromophore of lumazine protein (LumP), a fluorescent accessory protein that induces a blue shift (495 to 475 nm) in luciferase emission wavelengths in bioluminescent *Photobacterium*.¹ DMRL binds noncovalently to both the N- and C-terminal domains of LumP. It is also a biosynthetic precursor of riboflavin and substrate of riboflavin synthase.²

References

1. Sato, Y., Shimzu, S., Ohtaki, A., *et al.* Crystal structures of the lumazine protein from *Photobacterium kishitanii* in complexes with the authentic chromophore, 6,7-dimethyl- 8-(1'-D-ribityl) lumazine, and its analogues, riboflavin and flavin mononucleotide, at high resolution. *J. Bacteriol.* **192**(1), 127-133 (2010).
2. Liao, D.-I., Wawrzak, Z., Calabrese, J.C., *et al.* Crystal structure of riboflavin synthase. *Structure* **9**(5), 399-408 (2001).

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, 11/11/2022

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