

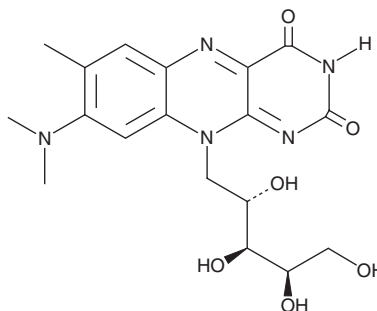
PRODUCT INFORMATION



Roseoflavin

Item No. 16001

CAS Registry No.: 51093-55-1
Formal Name: 8-demethyl-8-(dimethylamino)-riboflavin
Synonym: 8-Dimethylaminoriboflavin
MF: C₁₈H₂₃N₅O₆
FW: 405.4
Purity: ≥95%
UV/Vis.: λ_{max}: 219, 259, 491 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Roseoflavin is supplied as a crystalline solid. A stock solution may be made by dissolving the roseoflavin in the solvent of choice, which should be purged with an inert gas. Roseoflavin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of roseoflavin in these solvents is approximately 10 and 0.3 mg/ml, respectively.

Roseoflavin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, roseoflavin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Roseoflavin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Roseoflavin is an analog of flavin mononucleotide (FMN) and riboflavin that is synthesized by the soil bacterium *S. davawensis* and possesses antimicrobial activity.¹ It has been shown to bind directly to FMN riboswitch aptamers (K_D = ~100 nM), downregulating the expression of genes responsible for the synthesis and transport of riboflavin.²

References

1. Langer, S., Hashimoto, M., Hobl, B., *et al.* Flavoproteins are potential targets for the antibiotic roseoflavin in *Escherichia coli*. *J. Bacteriol.* **195**(18), 4037-4045 (2013).
2. Lee, E.R., Blount, K.F., and Breaker, R.R. Roseoflavin is a natural antibacterial compound that binds to FMN riboswitches and regulates gene expression. *RNA Biol.* **6**(2), 187-194 (2009).

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.

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