

Product Data Sheet

Inhibitors

Screening Libraries

Proteins

Thiomarinol A

 Cat. No.:
 HY-107164

 CAS No.:
 146697-04-3

 Molecular Formula:
 $C_{30}H_{44}N_2O_9S_2$

Molecular Weight: 640.81

Target: Antibiotic; Bacterial
Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Thiomarinol A (4-Hydroxythiomarinol C) is a potent antibiotic. Thiomarinol A is a hybrid of dithiolopyrrolone and marinolic acid. Thiomarinol A shows antimicrobial activity. Thiomarinol A inhibits MRSA IleRS in a dose-dependent with a K _i ^{app} value of 19 nM ^[1] .
In Vitro	Thiomarinol A shows antimicrobial activity with MICs of 0.002, 0.08, 0.04, 0.04, 0.050, 0.02, 0.01 μ M for COL IleRS, LLMR COL IleRSV588F/V631F, LLMR COL IleRSF587V/V631F, LLMR COL IleRSV588F, IleRSV588F MupA, thiomarinol-resistant COL IleRSG593D, thiomarinol-resistant COL IleRSP606S, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Johnson RA, et al. Inhibition of Isoleucyl-tRNA Synthetase by the Hybrid Antibiotic Thiomarinol. J Am Chem Soc. 2021 Aug 11;143(31):12003-12013.

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

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