

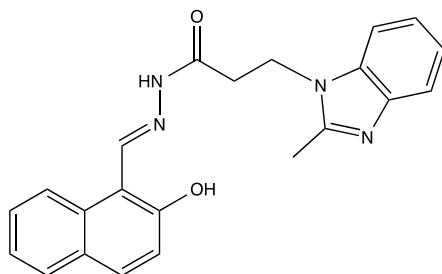
Catalog # 10-4105

Divin

CAS# 1443321-11-6

N'-[(E)-(2-Hydroxynaphthalen-1-yl)methylidene]-3-(2-methyl-1H-benzimidazol-1-yl)propanehydrazide

Lot # JKM1192



Divin is an iron, cobalt, and copper chelator that arrests the late stages of cytokinesis in bacteria by blocking the physical process of constriction in dividing cells without affecting FtsZ. Iron starvation leads to transcriptional down-regulation of genes encoding proteins involved in cell division and affects the spatiotemporal localization of the divisome. Long-term treatment of bacteria with Divin resulted in cellular damage and prevented reactivation of the divisome even in the presence of iron-replete conditions. Iron deprivation is a potential adjuvant therapy for treating bacterial antibiotic resistance.

- 1) Eun *et al.* (2013) *Divin: A small molecule inhibitor of bacterial divisome assembly*; J. Am. Chem. Soc. **135** 9768
- 2) Santos *et al.* (2018) *Small Molecule Chelators Reveal That Iron Starvation Inhibits Late Stages of Bacterial Cytokinesis*; ACS Chem. Biol. **13** 235

PHYSICAL DATA

Molecular Weight: 372.42

Molecular Formula: C₂₂H₂₀N₄O₂

Purity: 98% by HPLC

NMR: (Conforms)

Solubility: DMSO (> 25 mg/ml)

Physical Description: Pale yellow solid

Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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