Acinetobactin

Cat. No.: **SN-M-LM2260**

Chemical Properties

Product Name	Acinetobactin
Full Name	2-(2,3-dihydroxyphenyl)-N-hydroxy-N-[2-(1H-imidazol-5-yl)ethyl]-5-methyl-4,5-dihydro-1,3-oxazole-4-carboxamide
Cat. No.	SN-M-LM2260
CAS No.	160472-93-5
Molecular Formula	C16H18N4O5
Molecular Weight	346.34
Appearance	Solid
Storage	Keep away from moisture
Shipping	Shipping with blue ice/Shipping at ambient temperature.
Purity	98+%

Structure

[Product Image]

Biological Description

Acinetobactin is a siderophore produced by Acinetobacter baumannii, existing as the isoxazolidinone form generated from a pH-dependent, non-enzymatic isomerization of pre-acinetobactin. At pH >7, this rearrangement occurs rapidly with clean stereochemical inversion, while pre-acinetobactin persists at pH <6, enabling efficient iron(III) chelation across a broad pH range through a "two-for-one" siderophore swapping mechanism. As a conserved virulence factor, acinetobactin is valuable for studying microbial iron acquisition, where rigid oxazole analogs have been shown to block siderophore transport and inhibit bacterial growth at low micromolar concentrations under iron-limited conditions.

Related Products / Keywords

- Acinetobactin

This product is a research reagent and must not be used for clinical validation or human therapeutic use.