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## Product Data Sheet

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Product Name: (+)-Aerophysinin-1

Cat. No.: GC18516

### Chemical Properties

Cas. No. 28656-91-9

Chemical Name (1S,6R)-3,5-dibromo-1,6-dihydroxy-4-methoxy-2,4-cyclohexadiene-1-acetonitrile

SMILES COC1=C(Br)[C@H](O)[C@@](CC#N)(O)C=C1Br

Formula C<sub>9</sub>H<sub>9</sub>Br<sub>2</sub>NO<sub>3</sub> M.Wt 339

Solubility Methanol: Soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

(+)-Aerophysinin-1 is a metabolite originally isolated from the marine sponge *V. aerophoba* with diverse biological activities. (+)-Aerophysinin-1 (0.25-0.5 μM) induces cell death in MCF-7 and ZR-75-1 human breast cancer cells in a time- and concentration-dependent manner but has no effect on normal human fibroblasts at concentrations up to 5 μM. It also blocks EGF-induced endocytosis of the EGF receptor (EGFR) and EGF-dependent cell proliferation in MCF-7 cells. (+)-Aerophysinin-1 inhibits bovine aortic endothelial (BAE) cell proliferation and cord formation in a Matrigel assay. It inhibits angiogenesis in a dose-dependent manner in a chick chorioallantoic membrane (CAM) assay when administered from 1.5 to 3 nmol per egg. (+)-Aerophysinin-1 also has antibacterial activity against Gram-positive bacteria, including *S. aureus*, *S. albus*, and *B. subtilis*, but not Gram-negative bacteria and inhibits HIV-1 replication (IC<sub>50</sub> = 14.6 μM) via inhibition of HIV-1 reverse transcriptase.

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

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