PRODUCT INFORMATION

Jasplakinolide
Item No. 11705

CAS Registry No.: 102396-24-7
Formal Name: cyclo[(3R)-3-(4-hydroxyphenyl)-β-alanyl-8S-hydroxy-25,4E,6R-trimethyl-4-nonenoyl-L-alanyl-2-bromo-N-methyl-D-tryptophyl]
Synonym: NSC 613009
MF: C₃₆H₄₅BrN₄O₆
FW: 709.7
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Jasplakinolide is supplied as a solid. A stock solution may be made by dissolving the jasplakinolide in the solvent of choice. Jasplakinolide is soluble in organic solvents such as ethanol, methanol, and DMSO, which should be purged with an inert gas.

Description

Jasplakinolide is a natural macrocyclic peptide first isolated from a marine sponge. It potently inhibits the proliferation of PC3 prostate carcinoma cells (IC₅₀ = 35 nM) by binding F-actin (Kᵰ = 15 nM). This binding of jasplakinolide to actin, which is competitive with phalloidin, stabilizes actin filaments in vitro but disrupts actin filaments and induces irregular polymerization of monomeric actin in vivo. This compound is used to investigate the role of actin in diverse cellular roles, such as motility, transport, and development.

References