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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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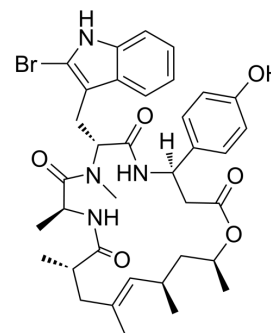
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Jasplakinolide

Cat. No.:	HY-P0027
CAS No.:	102396-24-7
Molecular Formula:	C ₃₆ H ₄₅ BrN ₄ O ₆
Molecular Weight:	709.67
Target:	Arp2/3 Complex; Fungal
Pathway:	Cytoskeleton; Anti-infection
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (14.09 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.4091 mL	7.0455 mL	14.0911 mL
5 mM	0.2818 mL	1.4091 mL	2.8182 mL
10 mM	0.1409 mL	0.7046 mL	1.4091 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Jasplakinolide is a potent actin polymerization inducer and stabilizes pre-existing actin filaments. Jasplakinolide binds to F-actin competitively with phalloidin with a K_d of 15 nM. Jasplakinolide, a naturally occurring cyclic peptide from the marine sponge, has both fungicidal and anti-cancer activity^{[1][2]}.

In Vitro

Jasplakinolide has an IC₅₀ of 35 nM for the antiproliferative effect of jasplakinolide on PC3 prostate carcinoma cells^[2]. Jasplakinolide (10 μM; for 2 hours) generates binucleated cells when applied during mitosis. Jasplakinolide induces the formation of F-actin-containing apical extensions in *Toxoplasma gondii* tachyzoites^[2]. Jasplakinolide (1 mM; for 60 min) induces the formation of actin-containing apical extensions in isolated *Toxoplasma gondii* tachyzoites fixed^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

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- Cell Mol Gastroenterol Hepatol. 2021;11(3):683-696.
 - Viruses. 2022 Jan 14;14(1):153.
 - Chin Med J. 2023 Jun 30.
 - bioRxiv. 2023 Feb 5.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Bubb MR, et al. Jasplakinolide, a cytotoxic natural product, induces actin polymerization and competitively inhibits the binding of phalloidin to F-actin. J Biol Chem. 1994 May 27;269(21):14869-71.

[2]. Holzinger A, et al. Jasplakinolide: an actin-specific reagent that promotes actin polymerization. Methods Mol Biol. 2009;586:71-87.

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

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