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Produktinformation

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Jarin-1

Cat. No.: HY-115521

CAS No.: 1212704-51-2

Molecular Formula: $C_{28}H_{29}N_3O_4$

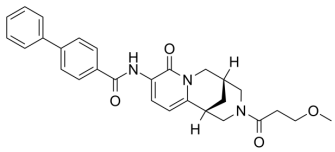
Molecular Weight: 471.55

Target: Others

Pathway: Others

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (70.68 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1207 mL	10.6033 mL	21.2067 mL
	5 mM	0.4241 mL	2.1207 mL	4.2413 mL
	10 mM	0.2121 mL	1.0603 mL	2.1207 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.30 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.30 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.30 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Jarin-1 is a jasmonic acid-amido synthetase (JAR1) inhibitor with an IC_{50} of 3.8 μM. Jarin-1 specific inhibits bioactive JA (jasmonoyl-isoleucine, JA-Ile) biosynthesis in Arabidopsis and other plants[1][2].

IC_{50} & Target

Jasmonic acid-amido synthetase (JAR1)[1][2]

In Vitro

A higher redness of strawberry fruit skin and anthocyanin content in MeJA-treated fruits with respect to Jarin-1-treated ones concomitant with an upregulation of FaANS and FaUFGT genes is found. Inversely, the proanthocyanidin (PA) content was higher in Jarin-1- and MeJA + Jarin-1-treated than in MeJA-treated fruits. MeJA + Jarin-1 treatment resulted in an

upregulation of FaANR and associated transcription factors such as FabHLH33 and FaMYB9/11 along with FaJMT and FaJAR1.2. JA-responsive elements in the promoter regions of FaMYB1/9/10/11 genes is found. PA biosynthesis-related genes can be upregulated by the application of Jarin-1 to MeJA-treated fruit, thus increasing PA accumulation in strawberry[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Delgado LD, et al. Application of a JA-Ile Biosynthesis Inhibitor to Methyl Jasmonate-Treated Strawberry Fruit Induces Upregulation of Specific MBW Complex-Related Genes and Accumulation of Proanthocyanidins. Molecules. 2018 Jun 13;23(6). pii: E1433.

[2]. Meesters C, et al. A chemical inhibitor of jasmonate signaling targets JAR1 in Arabidopsis thaliana. Nat Chem Biol. 2014 Oct;10(10):830-6.

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