Web: www.taiclone.com
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PluriSln 1

Catalog No: tcsc1514

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
91396-88-2

Formula:
$C_{12}H_{11}N_3O$

Pathway:
Metabolic Enzyme/Protease

Target:
Stearoyl-CoA Desaturase (SCD)

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 100 mg/mL (468.96 mM)

Alternative Names:
NSC 14613

Observed Molecular Weight:
213.24

Product Description

PluriSln 1 is an inhibitor of stearoyl-coA desaturase (**SCD**

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), and is a pluripotent cell-specific inhibitor.

IC50 & Target: SCD[1]

In Vitro: PluriSln 1, a small-molecule inhibitor of stearoyl-coA desaturase (SCD), on induced pluripotent stem cells (iPS)-derived cardiomyocytes (CM). PluriSln 1 treatment significantly decreases the mRNA and protein level of Nanog, a marker for both cell pluripotency and tumor progression; importantly, we provide evidence that PluriSln 1 treatment at 20 μM for 1 day significantly induces the apoptosis of Nanog-positive iPS derivates (iPSD). In addition, PluriSln 1 treatment at 20 μM for 4 days diminished Nanog-positive stem cells in cultured iPSD while not increasing apoptosis of iPS-derived CM. To investigate whether PluriSln 1 treatment prevents tumorigenicity of iPSD after cell transplantation, we intramyocardially injected PluriSln 1- or DMSO-treated iPSD in a mouse model of myocardial infarction (MI). DMSO-treated iPSD readily formed Nanog-expressing tumors 2 weeks after injection, which is prevented by treatment with PluriSln 1. Moreover, treatment with PluriSln 1 does not change the expression of cTnI, α-MHC, or MLC-2v, markers of cardiac differentiation (P>0.05, n=4). Importantly, PluriSln 1-treated iPS-derived CM exhibits the ability to engraft and survive in the infarcted myocardium[1].