

PluriSln 1

Catalog No: tcsc1514

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:

91396-88-2

Formula:

 $\mathsf{C}_{12}\mathsf{H}_{11}\mathsf{N}_3\mathsf{O}$

Pathway: Metabolic Enzyme/Protease

Target:

Stearoyl-CoA Desaturase (SCD)

Purity / Grade:

>98%

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 μ M for 1 day significantly induces the apoptosis of Nanog-positive iPS derivates (iPSD). In addition, PluriSln 1 treatment at 20 μ M 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 cTnl, 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].





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