Web: www.taiclone.com
Tel: +886-2-2735-9682
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TG003

Catalog No: tcsc2036

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
719277-26-6

Formula:
$C_{13}H_{15}NO_2S$

Pathway:
Others

Target:
Others

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 31 mg/mL (124.33 mM)

Observed Molecular Weight:
249.33

Product Description

TG003 is a potent inhibitor of **Clk1/Sty**; inhibits Clk1 and Clk4 with **IC_{50}** values of 20 and 15 nM, respectively.

IC50 & Target: IC50: 20 nM (Clk1), 200 nM (Clk2), >10 μM (Clk3), 15 nM (Clk4)[1]

In Vitro:

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TG003, shows the most potent effect on Clk1/Sty and Clk4 (IC_{50}, 15–20 nM) and lesser on Clk2 (200 nM). TG003 inhibits SF2/ASF-dependent splicing of β-globin pre-mRNA *in vitro* by suppression of Clk-mediated phosphorylation. It suppresses serine/arginine-rich protein phosphorylation, dissociation of nuclear speckles, and Clk1/Sty-dependent alternative splicing in mammalian cells[1]. The small drug TG003 increases endogenous expression of p53β and p53γ protein isoforms by modulation of TP53 intron 9 alternative splicing[2].

In Vivo: Intrathecal injection of either TG003 (1-100 pM) or IC261 (0.1-1 nM) dose-dependently decreases mechanical allodynia and thermal hyperalgesia induced by carrageenan or CFA[3].