Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Streptozocin

Catalog No: tcsc1828

Available Sizes

Size: 100mg

Size: 500mg

Specifications

CAS No:
18883-66-4

Formula:
$C_8H_{15}N_3O_7$

Pathway:
Cell Cycle/DNA Damage;Cell Cycle/DNA Damage

Target:
DNA Alkylator/Crosslinker;DNA/RNA Synthesis

Purity / Grade:
>98%

Solubility:
H2O : 113.3 mg/mL (427.19 mM; Need ultrasonic and warming); DMSO : ≥ 30 mg/mL (113.11 mM)

Storage Instruction:
4°C

Alternative Names:
Streptozotocin;U 9889

Observed Molecular Weight:
265.22

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Product Description

Streptozocin is a potent **DNA-methylating** agent, with **IC_{50}** values of 11.7, 904 and 1024 μg/mL for HL60, K562 and C1498 cells respectively.

IC50 & Target: DNA alkylator[1]

In Vitro: Streptozocin (STZ) shows higher cytotoxic effect in vitro on hematological cell lines compared to Alloxan (ALX). ALX appeares not to be toxic for the studied cell lines with estimated IC_{50} values of 2809, 3679 or over 4000 μg/mL for HL60, K562 and C1498 cells, respectively. Streptozocin is more toxic, especially for the human myeloid leukemia cell line, HL60. The IC_{50} values of Streptozocin are 11.7, 904 and 1024 μg/mL for HL60, K562 and C1498 cells, respectively. Results also show that the murine leukemic cells are more resistant to Streptozocin and ALX cytotoxicity than human leukemic cells[2].

In Vivo: Streptozocin (STZ)-injected mice show tendency to have lower body weight than that observed in animals injected with ALX. Streptozocin -injected mice have significantly fewer splenocytes ($22.2\pm3.2\times10^6$; n=10) compared to mice injected with ALX ($60.7\pm4.3\times10^6$; n=15; p=0.01)[2].