

Busulfan

Catalog No: tcsc2224



Available Sizes

Size: 1g

Size: 5g



Specifications

CAS No:

55-98-1

Formula:

$C_6H_{14}O_6S_2$

Pathway:

Cell Cycle/DNA Damage

Target:

DNA Alkylator/Crosslinker

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 30 mg/mL (121.80 mM)

Observed Molecular Weight:

246.3

Product Description

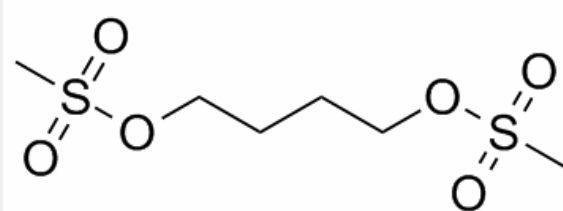
Busulfan is a potent **alkylator**, with chemotherapeutic activity.

IC50 & Target: DNA Alkylator^[1]

In Vitro: Busulfan is a potent alkylating agent, and used as a chemotherapeutic agent. Busulfan (120 μ M) results in premature senescence in WI38 cells via the Erk and p38 MAPK pathway, reduces GSH and increases ROS production, but the production can be

suppressed by NADPH oxidase^[1].

In Vivo: Busulfan (40 mg/kg, i.p) increases apoptosis and decreases the testis weight in mice. The testes of Busulfan-treated mice exhibits higher level of pRB expression, inhibits Rb phosphorylation and PCNA expression compared to the control^[2]. Busulfan (2.5, 5.0 mg/kg, i.p.) causes earlier occurrence of persistent esturs in a dose dependent manner in rats. Busulfan (5.0 mg/kg) also increases the incidence of uterine adenocarcinomas and multiplicity of uterine neoplastic lesions. In addition, Busulfan decreases the serum 17 β -estradiol(E2), progesterone and inhibin levels in rats, and elevates the E2/progesterone ratio only at 5.0 mg/kg^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!