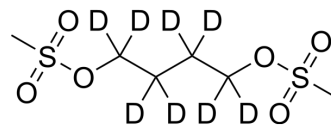


Busulfan-d₈

Cat. No.:	HY-B0245S		
CAS No.:	116653-28-2		
Molecular Formula:	C ₆ H ₆ D ₈ O ₆ S ₂		
Molecular Weight:	254.35		
Target:	DNA Alkylator/Crosslinker; Apoptosis		
Pathway:	Cell Cycle/DNA Damage; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMF : ≥ 16.7 mg/mL (65.66 mM)
 DMSO : ≥ 16.7 mg/mL (65.66 mM)
 DMSO:PBS (pH 7.2) (1:1) : ≥ 0.5 mg/mL (1.97 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.9316 mL	19.6580 mL	39.3159 mL
	5 mM	0.7863 mL	3.9316 mL	7.8632 mL
	10 mM	0.3932 mL	1.9658 mL	3.9316 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Busulfan-d₈ is a deuterium labeled Busulfan. Busulfan is a potent alkylating antineoplastic agent. Busulfan causes DNA damage by cross-linking DNAs and DNA and proteins. Busulfan inhibits thioredoxin reductase. Busulfan induces apoptosis. Busulfan is an immunosuppressive and myeloablative chemotherapeutic agent[1][2][3].

REFERENCES

- [1]. Virginia Probin, et al. Busulfan-induced senescence is dependent on ROS production upstream of the MAPK pathway. *Free Radic Biol Med.* 2007 Jun 15;42(12):1858-65.
- [2]. Mattan Levi, et al. Treosulfan induces distinctive gonadal toxicity compared with busulfan. *Oncotarget.* 2018 Apr 10;9(27):19317-19327.
- [3]. Janka Reimer, et al. Antineoplastic agent busulfan regulates a network of genes related to coagulation and fibrinolysis. *Eur J Clin Pharmacol.* 2012 Jun;68(6):923-35.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA