



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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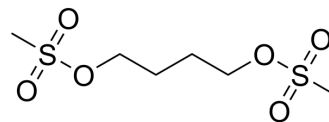
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## Busulfan (Standard)

Cat. No.:	HY-B0245R
CAS No.:	55-98-1
Molecular Formula:	C <sub>6</sub> H <sub>14</sub> O <sub>6</sub> S <sub>2</sub>
Molecular Weight:	246.3
Target:	Apoptosis; DNA Alkylator/Crosslinker
Pathway:	Apoptosis; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Busulfan (Standard) is the analytical standard of Busulfan. This product is intended for research and analytical applications. 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<sup>[1][2][3]</sup>.

### REFERENCES

- [1]. Probin V, 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. Epub 2007 Mar 31.
- [2]. Choi YJ, et al. Murine male germ cell apoptosis induced by busulfan treatment correlates with loss of c-kit-expression in a Fas/FasL- and p53-independent manner. *FEBS Lett*. 2004 Sep 24;575(1-3):41-51.
- [3]. Yoshida M, et al. Reduction of primordial follicles caused by maternal treatment with busulfan promotes endometrial adenocarcinoma development in donryu rats. *J Reprod Dev*. 2005 Dec;51(6):707-14. Epub 2005 Sep 22.
- [4]. Mattan Levi, et al. Treosulfan induces distinctive gonadal toxicity compared with busulfan. *Oncotarget*. 2018 Apr 10;9(27):19317-19327.
- [5]. 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.
- [6]. Chen YF, et al. The role of RIP1 and RIP3 in the development of aplastic anemia induced by cyclophosphamide and busulphan in mice. *Int J Clin Exp Pathol*. 2014 Dec 1;7(12):8411-20.
- [7]. Bouligand J, et al. Induction of glutathione synthesis explains pharmacodynamics of high-dose busulfan in mice and highlights putative mechanisms of drug interaction. *Drug Metab Dispos*. 2007 Feb;35(2):306-14.

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

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