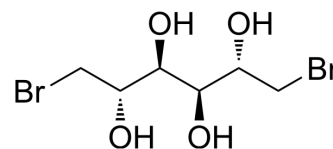


Mitobronitol

Cat. No.:	HY-13641
CAS No.:	488-41-5
Molecular Formula:	C ₆ H ₁₂ Br ₂ O ₄
Molecular Weight:	307.97
Target:	DNA Alkylator/Crosslinker
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mitobronitol (Myelobromol; DBM) is a brominated analog of mannitol, also known as an anticancer agent that is classified as an alkylating agent. Mitobronitol has potential for myelosuppression associated with significantly decreased risk for several complications of allogeneic bone marrow transplantation in accelerated chronic granulocytic leukemia ^{[1][2]} .								
In Vivo	<p>Mitobronitol (850 mg/kg; i.p.; single dose) improves spleen cells to mitogens and enhances thymus regeneration in mice model^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Female BALB/c mice (8-10 weeks old)^[2]</td> </tr> <tr> <td>Dosage:</td> <td>850 mg/kg; 1500 mg/kg (suspended in 5% Tween 80 in saline, 0.5 mL)</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; single dose</td> </tr> <tr> <td>Result:</td> <td> <p>Showed effect on the in vitro proliferative response of spleen cells to mitogens at 850 mg/kg.</p> <p>Enhanced thymus regeneration and was earlier than control, with the starting resititution time-course of 2 weeks and subtotal resititution time course of 3 weeks under 1500 mg/kg dose.</p> </td> </tr> </table>	Animal Model:	Female BALB/c mice (8-10 weeks old) ^[2]	Dosage:	850 mg/kg; 1500 mg/kg (suspended in 5% Tween 80 in saline, 0.5 mL)	Administration:	Intraperitoneal injection; single dose	Result:	<p>Showed effect on the in vitro proliferative response of spleen cells to mitogens at 850 mg/kg.</p> <p>Enhanced thymus regeneration and was earlier than control, with the starting resititution time-course of 2 weeks and subtotal resititution time course of 3 weeks under 1500 mg/kg dose.</p>
Animal Model:	Female BALB/c mice (8-10 weeks old) ^[2]								
Dosage:	850 mg/kg; 1500 mg/kg (suspended in 5% Tween 80 in saline, 0.5 mL)								
Administration:	Intraperitoneal injection; single dose								
Result:	<p>Showed effect on the in vitro proliferative response of spleen cells to mitogens at 850 mg/kg.</p> <p>Enhanced thymus regeneration and was earlier than control, with the starting resititution time-course of 2 weeks and subtotal resititution time course of 3 weeks under 1500 mg/kg dose.</p>								

REFERENCES

- [1]. Silver RT, et al. A comparative study of dibromomannitol and busulfan in the treatment of chronic myeloid leukemia. A study of cancer and leukemia group B. Cancer. 1987 Oct 1;60(7):1442-8.
- [2]. Silver RT, et al. A comparative study of dibromomannitol and busulfan in the treatment of chronic myeloid leukemia. A study of cancer and leukemia group B. Cancer. 1987 Oct 1;60(7):1442-8.
- [3]. Szebeni J, et al. Comparison of the lymphoid toxicities of mitobronitol and busulphan in mice: reduced B cell toxicity and improved thymic recovery as possible contributors to the reduced risk for complications following BMT with mitobronitol preconditioning. Leukemia. 1997 Oct;11(10):1769-74.

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