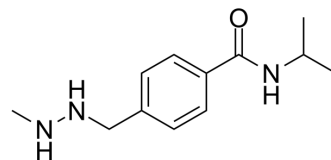


Procarbazine

Cat. No.:	HY-13733A
CAS No.:	671-16-9
Molecular Formula:	C ₁₂ H ₁₉ N ₃ O
Molecular Weight:	221.3
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	Procarbazine is an orally active alkylating agent, with anticancer activity. Procarbazine can be used in Hodgkin's disease research ^{[1][2]} .									
In Vitro	<p>Procarbazine (5 and 20 nM; 1 h) treatment shows cell survival at various concentrations^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>L1210 cells</td> </tr> <tr> <td>Concentration:</td> <td>5 and 20 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>1 hour</td> </tr> <tr> <td>Result:</td> <td>Showed 99.3% and 99.9% survival of cells at 5 mM and 20 mM, respectively.</td> </tr> </table>		Cell Line:	L1210 cells	Concentration:	5 and 20 nM	Incubation Time:	1 hour	Result:	Showed 99.3% and 99.9% survival of cells at 5 mM and 20 mM, respectively.
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In Vivo	<p>Procarbazine (intraperitoneal injection; 50 and 150 mg/kg; once daily; 5 d) induces micronuclei in hematopoietic cells, but not increases the lacZ mutant frequency (MF) in bone marrow^[2]. 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>Male muta mouse (7-8 weeks old) ^[2]</td> </tr> <tr> <td>Dosage:</td> <td>50 and 150 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; 50 and 150 mg/kg; once daily; 5 days</td> </tr> <tr> <td>Result:</td> <td>Increased the MN frequency appreciably, and observed micronucleus induction in the peripheral blood at 50 mg/kg.</td> </tr> </table>		Animal Model:	Male muta mouse (7-8 weeks old) ^[2]	Dosage:	50 and 150 mg/kg	Administration:	Intraperitoneal injection; 50 and 150 mg/kg; once daily; 5 days	Result:	Increased the MN frequency appreciably, and observed micronucleus induction in the peripheral blood at 50 mg/kg.
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CUSTOMER VALIDATION

- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

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- Mol Imaging Biol. 2020 Feb;22(1):124-133.

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REFERENCES

- [1]. J M Erikson, et al. Cytotoxicity and DNA damage caused by the azoxy metabolites of procarbazine in L1210 tumor cells. Cancer Res. 1989 Jan 1;49(1):127-33.
- [2]. T Suzuki, et al. Procarbazine genotoxicity in the MutaMouse; strong clastogenicity and organ-specific induction of lacZ mutations. Mutat Res. 1999 Aug 18;444(2):269-81.
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Caution: Product has not been fully validated for medical applications. For research use only.

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