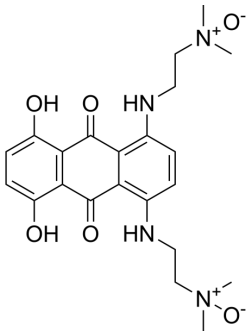
Banoxantrone

Cat. No.:	HY-13562
CAS No.:	136470-65-0
Molecular Formula:	$C_{22}H_{28}N_4O_6$
Molecular Weight:	444.48
Target:	NO Synthase
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Banoxantrone (AQ4N), as a prototype hypoxia selective cytotoxin, can be reduced to AQ4, a potent topoisomerase II inhibitor. Banoxantrone selectively kills hypoxic cells via an iNOS-dependent mechanism. Banoxantrone shows a potent cytotoxicity and hypoxia-selective effect enhanced by radiation[1][2].
IC_{50} & Target	iNOS
In Vitro	Banoxantrone (20 μM; 90 min) selectively induces cells damage in hypoxia T50/80 tumour cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Banoxantrone (200 mg/kg; i.p.; single dose) significantly inhibits T50/80 tumours and induces cell damage in BDF mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Acta Biomater. 2022 Aug 2;S1742-7061(22)00456-1.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

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REFERENCES

[1]. Hejmadi MV, et al. DNA damage following combination of radiation with the bioreductive drug AQ4N: possible selective toxicity to oxic and hypoxic tumour cells. Br J Cancer. 1996 Feb;73(4):499-505.

[2]. Mehibel M, et al. Radiation enhances the therapeutic effect of Banoxantrone in hypoxic tumour cells with elevated levels of nitric oxide synthase. Oncol Rep. 2016 Apr;35(4):1925-32.

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

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