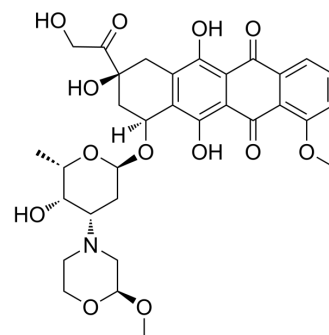


Nemorubicin (GMP)

Cat. No.:	HY-15794G
CAS No.:	108852-90-0
Molecular Formula:	C ₃₂ H ₃₇ NO ₁₃
Molecular Weight:	643.64
Target:	G-quadruplex
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Nemorubicin (Methoxymorpholinyl doxorubicin) GMP is a GMP-class Nemorubicin (HY-15794). Nemorubicin is a Doxorubicin derivative with potent antitumor activity. Nemorubicin is highly cytotoxic to a variety of tumor cell lines presenting a multidrug-resistant phenotype. Nemorubicin not only intercalate into the duplex DNA, but also result in significant ligands for G-quadruplex DNA segments, stabilizing their structure. Nemorubicin requires an intact nucleotide excision repair (NER) system to exert its activity^{[1][2][3][4]}.

REFERENCES

- [1]. Quintieri L, et al. Formation and antitumor activity of PNU-159682, a major metabolite of nemorubicin in human liver microsomes. Clin Cancer Res. 2005 Feb 15;11(4):1608-17.
- [2]. Quintieri L, et al. In vitro hepatic conversion of the anticancer agent nemorubicin to its active metabolite PNU-159682 in mice, rats and dogs: a comparison with human liver microsomes. Biochem Pharmacol. 2008 Sep 15;76(6):784-95.
- [3]. Sabatino MA, et al. Down-regulation of the nucleotide excision repair gene XPG as a new mechanism of drug resistance in human and murine cancer cells. Mol Cancer. 2010 Sep 24;9:259.
- [4]. Lu H, et al. Potentiation of methoxymorpholinyl doxorubicin antitumor activity by P450 3A4 gene transfer. Cancer Gene Ther. 2009 May;16(5):393-404.

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

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