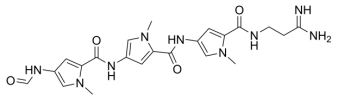
Distamycin A

Cat. No.:	HY-112058
CAS No.:	636-47-5
Molecular Formula:	$C_{22}H_{27}N_9O_4$
Molecular Weight:	481.51
Target:	Antibiotic; Apoptosis
Pathway:	Anti-infection; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Distamycin A (NSC-82150), an oligopeptide antibiotic, is a minor groove binder which binds to B-form DNA, preferentially at A/T rich sites.Distamycin A can change Enediyne-induced DNA cleavage sites and enhances apoptosis[1][2][3].
In Vitro	Distamycin A binds to DNA, widens the minor groove by unbending the helix axis and lengthening it by nearly 12-15%[2]. Distamycin A enhances the double-strand DNA cleavage at the 5'-CCT-3'/3'-GGA-5' and 5'-CCA-3'/3'-GGT-5' sequences[3]. Distamycin A enhances C1027-induced DNA ladder formation and cytotoxicity in HL-60 cells[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. ARCAMONE F, et, al. STRUCTURE AND SYNTHESIS OF DISTAMYCIN A. Nature. 1964 Sep 5;203:1064-5.

[2]. Hiraku Y, et, al. Distamycin A, a minor groove binder, changes enediyne-induced DNA cleavage sites and enhances apoptosis. Nucleic Acids Res Suppl. 2002;(2):95-6.

[3]. Majumder P, et, al. Effect of DNA groove binder distamycin A upon chromatin structure. PLoS One. 2011;6(10):e26486.

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