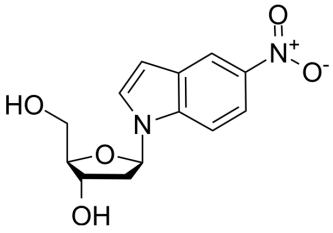
5-NIdR

Cat. No.:	HY-115567		
CAS No.:	191421-10-0		
Molecular Formula:	$C_{13}H_{14}N_2O_5$		
Molecular Weight:	278.26		
Target:	Apoptosis		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	5-NIdR (1-(β-D-2-Deoxyribofuranosyl)-5-nitroindole), an artificial nucleoside, exhibits the ability to inhibit the replication of DNA lesions generated by Temozolomide (HY-17364). 5-NIdR induces cancer cells apoptosis and arrests cell cycle at G0 phase. 5-NIdR enhances Temozolomide anti-tumor efficacy in murine glioblastoma model[1].
In Vitro	5-NIdR (12.5-100 μM; 24-72 h) inhibits the growth of human glioblastoma cell lines (U87, A172, and SW1088) in a dose-dependent manner[1]. 5-NIdR (1-100 μg/mL; 72 h) induces cell apoptosis in U87 cells, and arrests cell cycle at G0 phase with 100 μg/mL overnight incubation[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	5-NIdR (100 mg/kg; ip; for 5 consecutive days), together with Temozolomide (40 mg/kg), results complete tumor regression in a murine xenograft model of glioblastoma. Temozolomide alone only delayed tumor growth[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Choi JS, et al. Inhibition of Translesion DNA Synthesis as a Novel Therapeutic Strategy to Treat Brain Cancer. Cancer Res. 2018 Feb 15;78(4):1083-1096.

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