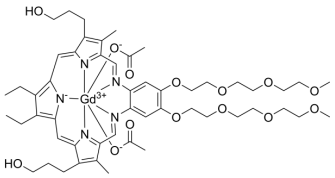
Motexafin gadolinium

Cat. No.:	HY-16336
CAS No.:	246252-06-2
Molecular Formula:	$C_{52}H_{72}GdN_5O_{14}$
Molecular Weight:	1148.4
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Motexafin gadolinium (PCI 0120) is a potent antitumor agent. Motexafin gadolinium is a specific texaphyrin in complex with gadolinium(III). Motexafin gadolinium increases intracellular ROS production. Motexafin gadolinium enhances sensitivity of tumor cells to ionizing radiation[1][2][3].

In Vitro

Motexafin gadolinium (50 μM; 22 h) leads to dichlorofluorescein acetate (DCFA) oxidation in A549 cells[1].
Motexafin gadolinium (100 μM; 4, 12 h) increases intracellular ROS production and apoptosis (24 h) when combined with Zn (100 μM), and ascorbate (100 μM) in Ramos lymphoma cells[2].
Motexafin gadolinium (0.01-100 μM) dose-dependent decrease the expression of p53 protein in HF-1 cells when combined with Zn (100 μM), and ascorbate (100 μM)[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[2]

Cell Line:	HF-1 cells
Concentration:	0.01-100 μM, with Zn (100 μM), and ascorbate (100 μM)
Incubation Time:	5 h
Result:	Elicited a dose-dependent decrease in p53 in HF-1 cells, does not reduce p53 message in Ramos cells.

REFERENCES

[1]. Magda D, et al. Motexafin gadolinium: a novel redox active drug for cancer therapy. Semin Cancer Biol. 2006 Dec;16(6):466-76.

[2]. Singh AT, et al. Motexafin gadolinium enhances p53-Mdm2 interactions, reducing p53 and downstream targets in lymphoma cell lines. Anticancer Res. 2010 Apr;30(4):1131-6.

[3]. Evens AM, et al. The novel expanded porphyrin, motexafin gadolinium, combined with [90Y]ibritumomab tiuxetan for relapsed/refractory non-Hodgkin's lymphoma: preclinical findings and results of a phase I trial. Clin Cancer Res. 2009 Oct 15;15(20):6462-71.

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

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