Antiproliferative agent-11

Cat. No.: HY-150968

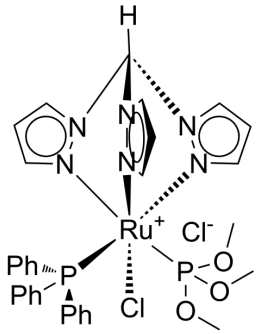
Molecular Formula: $C_{31}H_{34}Cl_2N_6O_3P_2Ru$

Molecular Weight: 772.56

Target: Apoptosis

Pathway: Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Antiproliferative agent-11 (compound 7) is an antiproliferative and selective Ruthenium(II)-Tris-pyrazolylmethane complex. Antiproliferative agent-11 shows antiproliferative activity towards MCF-7, HeLa, 518A2, HCT116 and RD with IC_{50}s of 6, 10, 6.8, 6.7 and 6 μM, respectively. Antiproliferative agent-11 can be used for the research of cancer[1].

IC_{50} & Target

IC50: 6 μM (MCF-7), 6 μM (RD), 6.7 μM (HCT116), 6.8 μM (518A2) , 10 μM (HeLa)[1]

In Vitro

Antiproliferative agent-11 (0-100 μM; 72 h) exhibits antiproliferative activity to MCF-7, HeLa, 518A2, HCT116 and RD[1].
Antiproliferative agent-11 (26.8 μM; 24 h) induces apoptosis in HCT116 cells[1].
Antiproliferative agent-11 (10-26.8 μM; 72 h) promotes HCT116 cells death by a mitochondria-dependent mechanism[1].
Antiproliferative agent-11 (0-50 μM; 24 h) inhibits HCT116 cells under 3D cell culture conditions[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	MCF-7, HeLa, 518A2, HCT116, RD and MRC5pd30
Concentration:	0-100 μM
Incubation Time:	72 hours
Result:	Showed selectively antiproliferative activity to MCF-7, HeLa, 518A2, HCT116 and RD with IC_{50}s of 6, 10, 6.8, 6.7 and 6 μM, respectively.

Apoptosis Analysis[1]

Cell Line:	HCT116
Concentration:	26.8 μM
Incubation Time:	24 hours
Result:	Induced apoptosis in HCT116 to achieve antiproliferative activity.

Cell Viability Assay[1]

Cell Line:	HCT116

Concentration:	10, 12.4 and 26.8 μM
Incubation Time:	72 hours
Result:	Reduced mitochondrial membrane potential and generated mitochondrial depolarization.

Cell Proliferation Assay[1]

Cell Line:	HCT116
Concentration:	0-50 μM
Incubation Time:	5 hours
Result:	Inhibited HCT116 with an IC_{50} value of 12.2 μM under 3D cell culture conditions.

REFERENCES

[1]. Cervinka J, et al. Ruthenium(II)-Tris-pyrazolylmethane Complexes Inhibit Cancer Cell Growth by Disrupting Mitochondrial Calcium Homeostasis. J Med Chem. 2022 Aug 1.

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