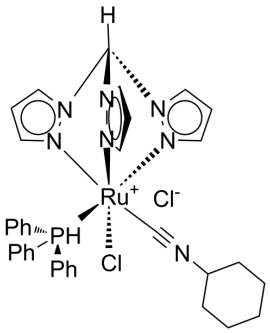
Antiproliferative agent-10

Cat. No.:	HY-150966
Molecular Formula:	$C_{35}H_{36}Cl_2N_7PRu$
Molecular Weight:	757.66
Target:	Mitochondrial Metabolism
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Antiproliferative agent-10 (compound 8) is an anti-tumour ruthenium(II)-tris-pyrazolylmethane complex that inhibits the growth of cancer cells by inhibiting mitochondrial calcium uptake[1].
In Vitro	Antiproliferative agent-10 (compound 8) (2-20 μM, 72 h) has some anti-cancer cell proliferative activity and effectively induces apoptosis in HCT116 cells[1]. Antiproliferative agent-10 (15 μM, 24 h) shows HCT116 cell survival rates of 93% to 97% and ruthenium content of cell was 59.4 ng/10^6 cells, so that it can accumulate efficiently in the cells and promote their biological activity[1]. Antiproliferative agent-10 (10-32 μM, 5 h) can cause mitochondrial depolarization in a concentration-dependent manner and inhibit mitochondrial calcium uptake[1]. Antiproliferative agent-10 can inhibit the formation and growth of spheroids of HCT116 cells with an IC_{50} value of 12.1 μM[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	MCF-7 (breast), HeLa (cervical), 518A2 (melanoma), HCT116 (colon), RD (rhabdomyosarcoma)
Concentration:	2-20 μM
Incubation Time:	72 hours
Result:	Inhibited the proliferation of MCF-7, HeLa, 518A2, HCT116 and RD with the IC_{50} values of 10, 15, 10, 8 and 6.6 μM, respectively.

REFERENCES

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

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

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