Platinum(IV) coordination compounds containing 5-methyl-1,2,4-triazolo[1,5-α]pyrimidin-7(4H)-one as nonleaving ligand. Molecular and cytotoxicity *in vitro* characterization.

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Streszczenie

Novel platinum(IV) coordination compounds with 5-methyl-1,2,4-triazolo[1,5-*a*]pyrimidin-7(4*H*)-one (HmtpO): *cis–trans*-[$PtCl_2(OH)_2(NH_3)$(HmtpO)] (**1**), *cis–trans*-[$PtCl_5$(HmtpO)] [$(CH_3)_2NH_2$] (**2**) have been prepared and structurally characterized by spectroscopic methods (^{1}H, IR and X-ray crystallography (**2**)). The X-ray results indicate that the local geometry around the platinum(IV) centre approximates a typical octahedral arrangement with nitrogen atom N3 of the HmtpO and three chloride atoms in equatorial positions. The remaining two axial positions are occupied by two chlorides. The preliminary assessment of antitumor properties of (**1**) was performed as an *in vitro*antiproliferative activity against HL-60 human acute promyelocytic leukemia and HCV29T bladder cancer. The *cis–trans*-[$PtCl_2(OH)_2(NH_3)$(HmtpO)] (**1**) exhibits higher cytotoxic activity against HL-60 (IC_{50} = 6.4 μM) than cisplatin.

Słowa kluczowe

Platinum(IV) complex, 5-Methyl-1,2,4-triazolo[1,5-a]pyrimidin-7(4H)-one, NMR, X-ray structure, Cytotoxicity

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