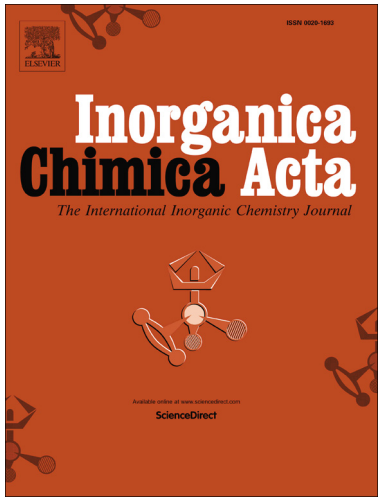

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Synthesis, characterization, and *in vitro* cytotoxicity of a Kiteplatin-Ibuprofen Pt(IV) prodrug.

Alessandra Curci,[1] *Nunzio Denora,*[2] *Rosa Maria Iacobazzi,*[3] *Nicoletta Ditaranto,*[1] *James D. Hoeschele,*[4] *Nicola Margiotta,*[1,*] *Giovanni Natile.*[1,*]

[1]Dipartimento di Chimica, Università degli Studi di Bari Aldo Moro, via E. Orabona 4, 70125 Bari (Italy);

[2]Dipartimento di Farmacia-Scienze del Farmaco, Università degli Studi di Bari Aldo Moro, via E. Orabona 4, 70125 Bari (Italy);

[3]Istituto Tumori IRCCS Giovanni Paolo II, viale O. Flacco 65, 70124 Bari (Italy).

[4]Department of Chemistry, Eastern Michigan University, Ypsilanti, MI, USA 48197.

***Corresponding Authors**

Phone: +39 080 5442759 (N.M.); +39 080 5442774 (G.N.). E-mail: nicola.margiotta@uniba.it (N.M.); giovanni.natile@uniba.it (G.N.).

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Abstract

The Pt(IV) prodrug of kiteplatin, *cis-trans-cis*-[$PtCl_2$(*RS*-Ibuprofen-H)$_2$(*cis*-1,4-DACH)], having in the axial positions two molecules of Ibuprofen, has been synthesised, characterized and tested *in vitro*. The aim was to potentiate the cytotoxic effect of kiteplatin with the anti-inflammatory activity of Ibuprofen. The reduction potential of the conjugate resulted comparable to those of other reported Pt(IV) carboxylate complexes, ensuring *in vivo* stability in blood during transport and intracellular reduction with release of the active species. The cytotoxic activity of the complex resulted remarkably potentiated reaching nanomolar activity. It is possible that the coordinated