Srpsko hemijsko društvo

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Hemijsko društvo Vojvodine

55. savetovanje Srpskog hemijskog društva

KRATKI IZVODI RADOVA

55th Meeting of the Serbian Chemical Society

Book of Abstracts

Novi Sad 8. i 9. juni 2018.
Novi Sad, Serbia, June 8-9, 2018

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OH P 12

Biološka aktivnost 3,4-dihidro-2(1H)-hinoksalinona i 3,4-dihidro-1,4-benzoksazin-2-ona

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S ciljem da se otkrije potencijalna terapeutska primena, ispitivana je biološka aktivnost hinoksalinona i 1,4-benzoksazin-2-ona. Na osnovu rezultata ispitivanja zaključili smo da jedinjenja 5, 9-11 pokazuju dobru citotoksičnu aktivnost na HeLa ćelijskim linijama tumora pri čemu je najniža vrednost za IC_{50} (10.46 ± 0.82 µM/mL) izmerena za jedinjenje 10. Takođe, najaktivnija jedinjenja (5, 9-11) pokazala su mnogo bolju selektivnost za MRC-5 ćelijsku liniju (do 17.4) u odnosu na cisplatinu. Ispitivana je, *in vitro,* inhibicija enzima α-glukozidaze i pokazalo se da jedinjenja 10 i 11 pokazuju značajnu vrednost inhibicije enzima za 52.54 ± 0.09 i 40.09 ± 0.49 µM.

Biological evaluation of the 3,4-dihydro-2(1H)-quinoxalinones and 3,4-dihydro-1,4-benzoxazin-2-ones

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In order to investigate new potential therapeutically active agents, we investigated the biological properties of two small libraries of quinoxalinones and 1,4-benzoxazin-2-ones (Fig. 1). The results obtained showed that compounds 5, 9–11 have good cytotoxic activity against HeLa cells where the lowest IC_{50} value (10.46 ± 0.82 µM/mL) was measured for compound 10. Additionally, the most active compounds (5, 9–11) showed much better selectivity for MRC-5 cells (up to 17.4) compared to cisplatin. *In vitro* evaluation of the inhibition of the enzyme α-glucosidase showed that compounds 10 and 11 exert significant inhibition of the enzyme at 52.54 ± 0.09 and 40.09 ± 0.49 µM, respectively.

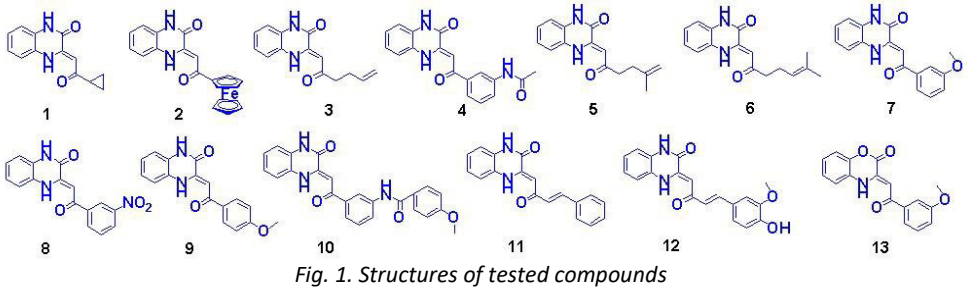

Fig. 1. Structures of tested compounds

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