

Synthesis and antihypoxic activity of some 3-(2-oxoalkyliden)-3,4-dihydro-2H-1,4-benzoxazines

© Svetlana S. Zykova,^{1*} Tatiana F. Odegova,² and Olga G. Karmanova³

¹ Department of Animal Science. FKO VPO Perm FSIN Institute of Russia. Karpinski St., 125. Perm, 614012. Russia. Phone: +7 (342) 228-60-77 (253). E-mail: zykova.sv@rambler.ru

² Department of Microbiology. FSBEI HPO Perm State Pharmaceutical Academy.

Polevaya St., 2. Perm, 614099. Russia. Phone: +7 (342) 233-55-01. E-mail: perm@pfa.ru

³ Department of General Chemistry. FGBOU VPO Moscow Institute of Physics and Technology (State University). Kerch St., 1a, Block. 1. Moscow, 117303. Russia.

Phone: (499) 236-72-63. E-mail: o_karmanova@mail.ru

*Supervising author; ⁺Corresponding author

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Аннотация

On the basis of the reaction of 1,6-dialkyl-3,4-dihydroxy-2,4-hexadiene-1,6-diones with 2-aminophenol there were isolated either (3Z)-3-(2-oxoalkyliden)-3,4-dihydro-2H-1,4-benzoxazine-2-ones, or 2-alkanoylmethyl-2-hydroxy-3-(2-oxoylidene)-2H-3,4-dihydro-1,4-benzoxazines depending on the conditions of synthesis. Due to the urgency of finding new biologically active compounds investigated the acute toxicity and antihypoxic activity of the obtained 1,4-benzoxazines were studied. Antihypoxic properties of the obtained compounds were studied on the model of exogenous normobaric hypoxia with hypercapnia. As a comparator product we used 2-ethyl-6-methyl-3-hydroxypyridine succinate (mexidole). It has been found that the synthesized 1,4-benzoxazines possess high antihypoxic activity significantly higher than the comparison drug. The synthesized compounds are practically non-toxic.