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Anti-Inflammatory Activity of Novel (S)-Naproxen Derivatives

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Abstract

© 2016, Springer Science+Business Media New York.In order to optimize the study of the anti-inflammatory activity of novel drugs, in the current study, we used simple in vitro test system, which included osmotic and free radical hemolysis of human erythrocytes and human platelets aggregation, to screen for potential anti-inflammatory activity of three newly developed (S)-naproxen derivatives. We selected one of them (L3), which performed in in vitro tests nearly as well as naproxen, and studied their anti-inflammatory effects on in vivo model of inflammation, induced by carragenan. L3 was comparable to naproxen in its anti-inflammatory effects, suggesting that the studied simple inexpensive in vitro tests of erythrocyte osmotic and free radical hemolysis and human platelets aggregation could be used for pre-screening of potential anti-inflammatory agents.

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Keywords

2(5H)-furanone, Anti-inflammatory drugs, Carrageenan, Hemolysis, Naproxen, Platelet aggregation

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