



5 α -pregnanolone hydrazones from tigogenin

Barbakadze N

Tbilisi State Medical University Ivel Kutateladze Institute of Pharmacochimistry, Georgia

Abstract

Hydrazones with various structures are characterized with high pharmacological activity and are an important class of organic compounds for new drug development. Steroidal hydrazones are exhibited high bioactivity including cytotoxicity.

In order to continue the study of the structure-activity relationship of derivatives of 5 α -steroids hydrazones of 5 α -pregnan-3 β -ol-20-one have been synthesized on the basis of tigogenin. Target compounds have been received by interaction of ketone - 5 α -pregnan-3 β -ol-20-one with arylhydrazines (4-nitrophenyl- or 2,4-dinitrophenylhydrazine) and arylhydrazides (3-bromobenzoic, nicotinic, salicylic, izonicotinic acids and thiosemcarbazine) in different solvents (ethylene glycol, ethyl or methyl alcohol) by using various catalysts (sodium acetate, acetic acid or concentrated hydrochloric acid).

The structures of synthesized nitrogen-containing new steroids have been established by IR-, ¹H-, ¹³C NMR, mas-spectral data and their cytotoxic activity have been studied.

Biography

N. Barbakadze has completed her PhD at the age of 30 years from Iv. Javakhishvili Tbilisi State University, Georgia. She is the research scientist at Tbilisi State Medical University I. Kutateladze Institute of Pharmacochimistry, Georgia. She has over 20 publications in reputed journals that have been cited over 50 times, and her publication H-index is 5.



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