

Synthesis and Pharmacological Evaluation of Novel Substituted and Unsubstituted *N*-(Benzoylphenyl)-1*H*-indole-2-carboxamides as Potent Antihypertriglyceridemic Agents

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Z. Naturforsch. **65c**, 309–316 (2010); received November 15, 2009/January 14, 2010

The *N*-(benzoylphenyl)-1*H*-indole-2-carboxamide derivatives **1–6** were synthesized, and the lipid-lowering effects of two of these novel compounds were studied using hyperlipidemic rats as an experimental model. Treatment of ethyl-1*H*-indole-2-carboxylate with aminobenzophenones in the presence of sodium ethoxide and DMF, followed by purification using column chromatography, gave the target compounds in good yields. The tested animals were divided into control, hyperlipidemic, compounds **2**-, **3**- and bezafibrate-treated groups. At a dose of 15 mg/kg body weight, compounds **2**, **3** and bezafibrate significantly reduced the elevated plasma triglyceride levels after 7 and 24 h. Furthermore, the high-density lipoprotein-cholesterol levels were remarkably increased in all treated groups after 7 and 24 h compared to the hyperlipidemic control group. However, only compounds **2**- and **3**-treated groups obviously showed a significant reduction in plasma total cholesterol levels after 24 h. It is therefore reasonable to assume that **2** and **3** may have a promising potential in the treatment of hyperlipidemia and coronary heart diseases.

Key words: (Benzoylphenyl)-1*H*-indole-2-carboxamides, High-Density Lipoprotein-Cholesterol Level, Triglycerides Reduction