PP-03

One-pot Synthesis and Anti-HCV Activity Evaluation of New Anilinoquinoline Derivatives

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Hepatitis C virus (HCV) infection is a main cause of chronic liver disease, leading to liver cirrhosis and hepatocellular carcinoma (HCC). The objective of our research was to develop effective agents against viral replication. Here, we have one-pot synthesized a series of anilinoquinoline derivatives. Based on a cell-based HCV replicon system, we observed that 2-(3'-nitroanilino)quinoline (18) exhibited anti-HCV activity with a 50% effective concentration (EC₅₀) value of 7 μM and a selective index (SI) value of 10. We concluded that the compound 18 possessed a potent activity against HCV replication and could provide as a new lead compound as anti-HCV inhibitors.

References.

- 1. N. Ahmed, K.G. Brahmbhatt, S. Sabde, D. Mitra, I.P. Singh, K.K. Bhutani, Biorg. Med. Chem. 18 (2010) 2872-2879.
- 2. G. Melagraki, A. Afantitis, H. Sarimveis, P.A. Koutentis, J. Markopoulos, O. Igglessi-Markopoulou, Biorg. Med. Chem. 15 (2007) 7237-7247.

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