6-Cyanopurines: versatile reagents to generate potentially bioactive compounds

A. Gonçalves, A. Rocha, M.A. Carvalho, M.F. Proença
Departamento de Química, Universidade do Minho, Braga, Portugal, Campus de Gualtar, 4710-057 Braga
mac@quimica.uminho.pt

Recently our research group reported the synthesis of pyrimido[5,4-d]pyrimidines 1 as a new promising class of antitubercular compounds. These molecules were obtained by reaction of 6-cyanopurines 2 with hydrazides[1] and the activity was dependent on the substituents R and R’.

Some 6-substituted purine derivatives 3 were also reported as active against tuberculosis. The activity was mainly dependent on the substituent present in N-9 (R) and C-6 (R’) of the purine ring[2].

In order to obtain new 6-substituted purines 3 and pyrimidopyrimidines 1, having a new substituent R=3-FC₆H₄, the 6-cyanopurine 2 (R=3-FC₆H₄) was synthesized. Purine derivatives 2 were used as starting materials to generate the target compounds 1 and 3 with new substituents R’. These results will be presented.

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Referências