

Synthesis, characterization and in vitro antifungal evaluation of novel benzimidazo [1,2-c]quinazolines

Insuasty, B. A.

Torres, H.

Quiroga, J.

Abonía, R.

Rodríguez, R.

Nogeras, M.

Sánchez, A.

Saitz, C.

Alvarez, S. L.

Zacchino, S. A.

The synthesis of a series of new benzimidazo[1,2-c]quinazolines starting from 2-nitrobenzaldehyde and o-phenyldiamine is described. The structure elucidation of the products is based on detailed NMR analysis of experiments such as ¹H-COSY, NOESY, DEPT, HSQC and HMBC. These compounds showed antifungal properties only against dermatophytes. Among them, those with electron-donor substituents on the 6-phenyl ring inhibited mainly *T. rubrum* and *E. floccosum* with MICs between 25-250 µg/mL and *M. canis*, *M. gypseum* and *T. mentagrophytes* with MICs between 50-250 µg/mL. Structures with electron-withdrawing substituents on the phenyl ring did not show any activities up to 250 µg/ml. Methyl substituents on the benzimidazole ring seem negatively affect the antifungal behaviour of this series. © 2006 Sociedad Chilena de Química.