Oxygen radicals are produced in many pathophysiologic states whether the event is a causal factor of illness or is a result of their progression. Oxygen radicals including superoxide anions, hydrogen peroxide are thought to be involved in a number of type of acute, and chronic pathologic condition in the brain and neural tissue. So the antioxidants have recently received much attention as therapeutic agent for the treatment of neurodegenerative disease.

In this study, we describe synthesis of a series of chromones derivatives as antioxidant agents. The target compounds are designed to include the structural feature of caffeic acid, flavonoid, and tocopherol known as antioxidants.

[PD1-39] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Synthesis and Antifungal Activities of 2,5-Disubstituted-6-Arylamino-4,7-benzimidazolesiones

Choi Ko UnO, You Hea-Jung, Shim Ju-Yeong, Choi Ik Hwa, Chae Mi Jin, Ryu Chung-Kyu
College of Pharmacy, Ewha Womans University, Seoul 120-750, Korea

2,5-Disubstituted-6-arylamino-4,7-benzimidazolesiones were synthesized and tested for in vitro antifungal activities against pathogenic fungi. The 2-aryl-6-arylamino-5-chloro-4,7-benzimidazolesiones were prepared by nucleophilic substitution on 2-Aryl-5,6-dichloro-4,7-benzimidazolesiones with appropriate arylamines in good yields. The synthesized 4,7-benzimidazolesiones were tested in vitro for their growth inhibitory activities against pathogenic fungi by the standard method. The MIC values were determined by comparison to fluccytosine as a fungicidal standard agent. The most active potential among the 4,7-benzimidazolesiones series was found for 6-arylamino-2-(2-piryld)-4,7-benzimidazolesiones, which showed generally good activities against all tested Candida species and A. niger.

[PD1-40] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Synthesis and evaluation of antifungal activities of 5-arylamino-6-chloro-4,7-dioxindazoles

You Hea-JungO: Shim Ju-Yeong, Song Eun-Ha, Choi Ko Un, Choi Ik Hwa, Chae Mi Jin, Ryu Chung-Kyu
College of Pharmacy, Ewha Womans University, Seoul 120-750, Korea

5-Arylamino-6-chloro-4,7-dioxindazoles (DZs) were newly synthesized for the evaluation of antifungal activities. The compounds DZs were prepared by regioselective nucleophilic substitution of 5,6-dichloro-4,7-dioxindazoles with appropriate arylamines in high yield. DZs were tested for their growth inhibitory activities against Candida species and Aspergillus niger. The MIC values were determined by the two-fold dilution method. In general, DZs showed in vitro antifungal activities. Among the tested compounds, DZ1, 3, 6, 7and 12 showed potent antifungal activities against Candida species and Aspergillus niger. DZ7 was the most effective in preventing the growth of Candida species.

[PD1-41] [10/17/2002 (Thr) 09:30 - 12:30 / Hall C]

Synthesis of N-arylalkylbenzimidazolones(thiones) and 3-arylalkyl-3,4-dihydro-1H-quinazolinones (thiones) as conformationally restricted PETT analogs for inhibition of HIV-1 reverse transcriptase

Lee JeeHyungO, Cho SooHyun, Dang The Hung, Lee ChongKyo, Kim HaeSoo, Jung SangHun
College of Pharmacy, Chungnam National University, Daejon 305-764, Korea. Korea research Institute of Chemical Technology, Daejon 305-764, Korea