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Synthesis and enzyme inhibition study of dihydrofurocumarin and dihydrofuropyrane compunds

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Coumarin derivatives such as *Scopoletin, Esculatin, Fercoprolone, Hohneliacoumarin, Angelicin, Psoralen* and *Aureptene* have been found in nature and they possess many biological activities varying from anticancer, antioxidant, antibacterial, antifungal and anticougulant. It is well known that $Mn(OAc)_3$ have been used as radical oxidant in the synthesis of dihydrofuran derivatives forming C-C bond between active methylene compounds and alkenes. In here, we performed the reaction of of 4-hydroxycoumarin and 4-hydroxypyrane with conjugated amide and esters promoted by $Mn(OAc)_3$ leading to dihydrofurocoumarins and dihydrofuropyranes in moderate to good yields. All new compounds were characterized by spectroscopic techniques. Also, we investigated enzyme (cGMP PDE- cyclic guanozine mono phosphate phosphodiesterase) inhibitions of these compounds.

Biography

Asli Ustalar has completed his MS from Kocaeli University. She is a PhD student in Kocaeli University.

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