INTISARI

KUSMAHENDRA, D.C., 2017, SINTESIS SENYAWA ANALOG KALKON DENGAN MATERIAL AWAL P-METOKSIASETOFENON DAN INDOL-3-KARBALDEHID MENGGUNAKAN KATALIS NaOH DALAM TEMPERATUR KAMAR (27 - 30^{o} C), SKRIPSI, FAKULTAS FARMASI , UNIVERSITAS SETIA BUDI, SURAKARTA.

Kalkon merupakan suatu prekursor flavonoid yang terdiri dari duacincin aromatik yang dihubungkan oleh tiga karbon, dalam sistem *α,β*-tidak jenuh karbonil. Senyawa kalkon dan analognya dilaporkan mempunyai berbagai macam aktivitas biologis antara lain sebagai antibakteri, antikanker, antifungi, antiinflamasi, dan antioksidan. Penelitian ini bertujuan untuk mensintesis senyawa3-(3-indolil)-1-(4-metoksifenil)prop-2-en-1-on menggunakan material awalindol-3-karbaldehid dan ρ-metoksiasetofenon.

Senyawa3-(3-indolil)-1-(4-metoksifenil)prop-2-en-1-on disintesis dengan material awal indol-3-karbaldehid dan ρ-metoksiasetofenon menggunakan katalis basa NaOH dalam temperatur kamar (27 - 30^{o} C). Pengujian kemurnian senyawa dilakukan menggunakan kromatografi lapis tipis, dan kromatografi gas. Struktur senyawa hasil sintesis dielusidasi menggunakanspektrometer massa, spektofotometer IR dan spektrofotometer UV.

Hasil penelitian menunjukkan bahwa telah diperoleh senyawa 3-(3indolil)-1-(4-metoksifenil)prop-2-en-1-on berupa serbuk kuning dengan % *yield* 3,11%, dan kemurnian senyawa mencapai 90,19%. Elusidasi struktur senyawa hasil sintesis menunjukkan struktur kimia sesuai dengan perkiraan.

Kata kunci : sintesis, 3-(3-indolil)-1-(4-metoksifenil)prop-2-en-1-on, NaOH
indol-3-karbaldehid, ρ-metoksiasetofenon, analog kalkon

ABSTRACT

KUSMAHENDRA, D.C., 2017, SYNTHESIS OF CHALCONE ANALOGUE USING P-METHOXYACETOPHENONEAND INDOLE-3-CARBOXALDEHYDE CATALYZED BY NaOH IN ROOM TEMPERATURE (27^{o} C - 30^{o} C), SKRIPSI, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Chalcones are considered as the precursors of flavonoids which consist of two aromatic rings linked by a three-carbon α,β-unsaturated carbonyl system. Chalcone and its analogues have been reported to possess various biological activities such as antibacterial, anticancer, antifungal, anti-inflammatory and antioxidant. The aim of this study was to synthesize 3-(3-indolyl)-1-(4-methoxyphenyl)prop-2-en-1-one using indole-3-carboxaldehyde and ρ-methoxyacetophenone as starting materials.

3-(3-indolyl)-1-(4-methoxyphenyl)prop-2-en-1-one was synthetized from indole-3-carboxaldehyde and ρ-methoxyacetophenone, catalyzed by NaOH in room temperature (27 - 30^{o} C). Thin layer and gas chromatography were used as purity test method. The structure of the compound was elucidated using mass spectrometer, UV-Vis spectrophotometer and IR spectrophotometer.

The resultsshowedthat 3-(3-indolyl)-1-(4-methoxyphenyl)prop-2-en-1-one wassuccessfullysynthesized, yellow powder was obtained with 3,11% of yield and 90,19 % of purity. Structure elucidation showed that the chemical structure was appropriate to estimated chemical structure.

Keywords: synthesis, 3-(3-indolyl)-1-(4- methoxyphenyl)prop-2-en-1-one, NaOH, indole-3-carboxaldehyde,ρ-methoxyacetophenone, chalcone analogue