

INTISARI

Tetrahidropentagamavunon-0 (THPGV-0) merupakan senyawa modifikasi dari Pentagamavunon-0 (PGV-0) yang memiliki berbagai aktivitas biologis, namun memiliki bioavailabilitas yang rendah. THPGV-0 didapatkan dengan cara hidrogenasi terhadap PGV-0. Namun metode ini memiliki kekurangan yaitu rendemen sintesis yang rendah.

Mengingat rendahnya rendemen metode ini, dikembangkan metode sintesis THPGV-0 melalui reaksi substitusi α antara senyawa siklopentanon dan 4-(bromometil)-2-metoksifenol (vanilil bromida), dimana 4-(bromometil)-2-metoksifenol disintesis dari brominasi 4-(hidroksimetil)-2-metoksifenol (vanilil alkohol).

Hasil reaksi brominasi telah berhasil diisolasi dan dikristalkan, untuk kemudian dilakukan analisis menggunakan metode GC-MS. Berdasarkan hasil analisis KLT, diduga didapatkan senyawa THPGV-0. Namun, senyawa THPGV-0 belum berhasil diisolasi dan dikristalkan. Hal ini menyebabkan elusidasi struktur belum dapat dilakukan terhadap senyawa hasil reaksi.

Kata kunci: *THPGV-0, Vanilil alkohol, Brominasi, Substitusi α*

ABSTRACT

Tetrahidropentagamavunon-0 (THPGV-0) is a modified compound based on Pentagamavunon-0 (PGV-0) which has a lot of biological activity, but low on bioavailability. THPGV-0 is obtained by hydrogenizing PGV-0. However this method only has a small rendement.

In order to gather a larger rendement, a novel method of synthesizing THPGV-0 has been developed through alpha substitution reaction between cyclopentanone and 4-(bromomethyl)-2-methoxyphenol (vanillyl bromide), which obtained by brominizing 4-(hydroxymethyl)-2-methoxyphenol (vanillyl alcohol).

Bromination product has successfully isolated, crystalized, and finally analyzed with GC-MS. Based on TLC analysis, the compound THPGV-0 has been successfully synthesized but unable to be isolated and crystalized. Thus, structure elucidation cannot be performed.

Keywords: *THPGV-0, Vanillyl alcohol, Bromination, Alpha substitution*