Sintesis dan uji sitotoksik l1210 senyawa 2 amino n fenil benzamida sebagai zat antara pembentukan senyawa 5h fenanthridin 6 on = Synthesis and cytotoxic activity l1210 of 2 amino n phenyl benzamide as intermediates in the synthesis of 5h phenanthridin 6 one

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Abstrak

[ABSTRAK
Telah dilakukan sintesis senyawa 2-amino-N-fenil benzamida yang merupakan zat antara pembentukan analog senyawa hasil isolasi 7-hidroksi-5H-fenanthridin-6-on (senyawa 5H- fenanthridin-6-on). Sintesis senyawa 2-amino-N-fenil benzamida dilakukan melalui dua tahap reaksi, yaitu tahap pertama reaksi amidasi antara asam o-nitro benzoat dengan tionil klorida. Klorida asam yang terbentuk langsung direaksikan dengan anilin tanpa isolasi menghasilkan senyawa 2-nitro-N-fenil benzamida sebesar 84, 42 %. Reaksi tahap kedua dengan reduksi gugus nitro menjadi amina menggunakan Fe/HCl dilanjutkan netralisasi dengan basa menghasilkan senyawa 2-amino-N-fenil benzamida sebesar 79,01 %. Proses pemurnian hasil sintesis secara secara kromatografi kolom dan rekristalisasi serta diidentifikasi dengan menggunakan FT-IR dan LC-MS .
Uji aktivitas sitotoksik terhadap sel leukemia L1210 senyawa 2-nitro-N-fenil benzamida dan 2-amino-N-fenil benzamida, masing-masing mempunyai nilai IC50 sebesar 29,46 dan 26,90 g/ml.
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ABSTRACT
Have performed the synthesis of 2-amino-N-phenyl benzamide (which is an intermediate formation of analog isolated compounds 7-hydroxy-5H-fenanthridin-6-one (compound 5H-fenanthridin-6-one). Synthesis of 2-amino-N-phenyl benzamide done through a two-stage reaction, the first step amidation reaction between o-nitro benzoic acid with thionyl chloride. Chloride acid is formed directly without isolation was reacted with aniline to produce compounds 2-nitro-N-phenyl benzamide by 84, 42%. The second stage of the reduction reaction of nitro groups to amines using Fe/HCl followed by neutralization of alkaline compounds produce 2-amino-N-phenyl benzamide was 79.01%. The purification process results in the synthesis of recrystallization and column chromatography and identified using FT-IR and LC-MS.
Test cytotoxic activity against L1210 leukemia cells compound 2-nitro-N-phenyl benzamide and 2-amino-N-phenyl benzamide, each having an IC50 value of 29.46 and 26.90 g/ml.;Have performed the synthesis of 2-amino-N-phenyl benzamide (which is an intermediate formation of analog isolated compounds 7-hydroxy-5H-fenanthridin-6-one (compound 5H-fenanthridin-6-one).
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