

“One-Pot” Synthesis of 4-Arylpolyhydroquinoline Derivatives and Evaluation of their Anti-Gastric Cancer Activity

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SUMMARY. A series of 4-arylpolyhydroquinoline derivatives (**1-6**) were synthesized with the aim of using them as anti-gastric cancer agents in clinical trials, and their structures were characterized by IR, ¹H NMR, HRMS, and single crystal X-ray crystallography. Their anti-gastric cancer activity against four human gastric cancer cell lines including HGC27, BGC823, MGC803 and SGC7901 were evaluated *in vitro* using the MTT assay, and the results showed that compounds **4-6** had the highest anti-gastric cancer activity against the four cancer cell lines, and compounds **1-3** did not show any inhibition.

RESUMEN. Se sintetizaron una serie de derivados de 4-arylpolihidroquinoline (**1-6**) con el objetivo de utilizarlos como agentes de cáncer antigástrico en ensayos clínicos, y sus estructuras se caracterizaron por IR, ¹H RMN, HRMS y cristalografía de rayos X de cristal único. Su actividad contra el cáncer gástrico en cuatro líneas celulares de cáncer gástrico humano incluyendo HGC27, BGC823, MGC803 y SGC7901 se evaluaron *in vitro* usando el ensayo MTT; los resultados mostraron que los compuestos **4-6** tenían la mayor actividad contra el cáncer gástrico contra los cuatro líneas celulares de cáncer y que los compuestos **1-3** no mostraron ninguna inhibición.

KEY WORDS: 4-arylpolyhydroquinoline, gastric cancer, X-ray.

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