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Novel 4-Arylpolyhydroquinoline Derivatives: Synthesis and Inhibition of Human Cervical Cancer Cells

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SUMMARY. **A series of 4-arylpolyhydroquinoline derivatives (1-6) were synthesized with the aim of using them as anticancer drugs in clinical trials, and their structures were characterized by IR, 1H NMR, HRMS, and single crystal X-ray crystallography. The anticancer activity of these compounds was investigated against three human cervical cancer cell lines (HeLa, C33a and U14) by MTT assay. The results reveal that compared with compounds 4-6, compounds 1-3 exhibit more potent anticancer activity, which is even better that of the reference drug.**

RESUMEN. Se sintetizaron una serie de derivados de 4-arilpolyhydroquinoline (1-6) con el objetivo de utilizarlos como fármacos anticancerosos en ensayos clínicos, y sus estructuras se caracterizaron por IR, 1H RMN, HRMS y cristalografía de rayos X de cristal único. La actividad anticancerígena de estos compuestos se investigó contra tres líneas celulares de cáncer de cuello de útero humano (HeLa, C33a y U14) mediante ensayo de MTT. Los resultados revelan que, en comparación con los compuestos 4-6, los compuestos 1-3 exhiben una actividad anticancerígena más potente, que es incluso mejor que la del fármaco de referencia.

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

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