

Two Novel Pyran-Ketone Derivatives: Synthesis, Crystal Structures and Inhibiting Thyroid Adenoma Cell Activity *In Vitro*

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SUMMARY. Two novel pyran-ketone derivatives (1 and 2) were synthesized and characterized via IR, ¹H NMR, HRMS, and single crystal X-ray crystallography. In addition, the anticancer effects of the two compounds were studied on three human thyroid adenoma cell lines including FTC-133, B-CPAP and PTC-1113A. The results showed that compared with the reference drug ifosfamide, compounds 1 and 2 displayed efficient antitumor activity.

RESUMEN. Se sintetizaron dos nuevos derivados de piran-cetona (1 y 2) y se caracterizaron mediante IR, ¹H NMR, HRMS y cristalización de cristal único de rayos X. Además, se estudiaron los efectos anticancerígenos de los dos compuestos en tres líneas celulares de adenoma de tiroides humano, incluyendo FTC-133, B-CPAP y PTC-1113A. Los resultados mostraron que en comparación con el fármaco de referencia ifosfamida, los compuestos 1 y 2 mostraron una actividad antitumoral eficaz.

KEY WORDS: pyran-ketone, thyroid adenoma, X-ray.

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