

Synthesis and Anti-glioma Activity of Two Novel Na(I) and Co(II) Complexes

Wei GOU^{1,2}, Bo LI² & Xun-Tai MA^{1,*}

¹ Department of Neurology, Affiliated Hospital of Southwest Medical University, Luzhou, Sichuan 646000, China

² Department of Neurology, Bazhong Central Hospital, Bazhong, Sichuan 636000, China

SUMMARY. Two new Na(I)-based and Co(II)-based coordination polymers, [Na₂(TDA)] (1, H₂TDA = 1,1':3',1"-terphenyl]-4,4"-dicarboxylic acid) and {[Co(IBA)₂](DMF)_{1.5}]_n (2, HIBA = 4-(1H-imidazol-1-yl)benzoic acid), have been synthesized and structurally characterized. The single crystal X-ray study results indicate that 1 is a neutral 3D framework and exhibits a flu-type (4,8)-connected network with the Point symbol of {4¹².6¹².8⁴}{4⁶}₂; 2 shows a four-fold interpenetrated net with a dia topology. In addition, *in vitro* anti-glioma activity of compounds 1 and 2 on four human glioma cells (U251, U343, U172 and SHG44) was further determined.

RESUMEN. Se han sintetizado y caracterizado estructuralmente dos nuevos polímeros de coordinación a base de Na(I) [Na₂(TDA)] (1, H₂TDA = 1,1':3',1"-terfenilo]-4,4" ácido dicarboxílico) y Co(II) {[Co(IBA)₂](DMF)_{1.5}]_n (2, HIBA = 4-(1H-imidazol-1-il) ácido benzoico. Los resultados del estudio de rayos X de cristal único indicó que 1 es un marco 3D neutral de tipo flu (4,8)-conectado con el símbolo Punto de {4¹².6¹².8⁴}{4⁶}₂; 2 muestra una red interpenetrada cuatro veces con una topología dia. Además, se determinó la actividad anti-glioma *in vitro* de los compuestos 1 y 2 en cuatro células de glioma humano (U251, U343, U172 y SHG44).

KEY WORDS: anti-glioma, coordination polymers, X-ray.

* Author to whom correspondence should be addressed. E-mail: xuntai_ma666@126.com