

Therapeutic Effects of La(III) Coordination Polymer in Regulating Immune Cell Response to Rejection after Liver Cancer Transplantation

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SUMMARY. In the current study, a new three-dimensional (3D) coordination polymer, $[La_2(pbbp)(pbsd)_3]$ (**1**) ($H_2pbsd = 2,2'-(1,4\text{-phenylenebis(methylene)})bis(\text{sulfanediyl})\text{dinicotinic acid}$, $H_2pbbp \cdot 2Cl = 1,1'-(1,4\text{-phenylene-bis(methylene)})\text{-bis}(3\text{-carboxy pyridinium})\text{ dichloride}$), was prepared by the solvothermal reaction of $La(NO_3)_3 \cdot 6H_2O$, $H_2pbbp \cdot 2Cl$ and H_2pbsd in mixed solvent of DMF and H_2O , which was characterized by single-crystal X-ray diffraction, powder X-ray diffraction, infrared spectroscopy, and thermogravimetric analyses. For the prevention of rejection after liver cancer transplantation, the real time RT-PCR was used to measure the expression of Fas antigen ligand (Fas-L) on T lymphocytes. The content of pigment epithelium-derived factor (PEDF) released into the serum was measured with ELISA assay.

RESUMEN. En el estudio actual, un nuevo polímero de coordinación tridimensional (3D), $[La_2(pbbp)(pbsd)_3]$ (**1**) ($H_2pbsd=2,2'-(1,4\text{-fenilenbis(metileno)})bis(\text{ácido sulfanodiil})\text{dinicotínico}$, $H_2pbbp \cdot 2Cl=1,1'-(\text{dicloruro de } 1,4\text{-fenileno-bis(metileno)})\text{-bis}(3\text{-carboxipiridinio})$), se preparó mediante la reacción solvotérmica de $La(NO_3)_3 \cdot 6H_2O$, $H_2pbbp \cdot 2Cl$ y H_2pbsd en solvente mixto de DMF y H_2O , que se caracterizó mediante difracción de rayos X de monocristal, difracción de rayos X de polvo, espectroscopia infrarroja y análisis termogravimétricos. Para la prevención del rechazo después del trasplante de cáncer de hígado, se utilizó la RT-PCR en tiempo real para medir la expresión del ligando del antígeno Fas (Fas-L) en los linfocitos T. El contenido de factor derivado del epitelio pigmentario (PEDF) liberado en el suero se midió con ensayo ELISA.

KEY WORDS: coordination polymer, liver cancer transplantation, PEDF.