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Rocapuldencel-T

National Cancer Institute

Source

National Cancer Institute. <u>Rocapuldencel-T</u>. NCI Thesaurus. Code C77907.

A cancer vaccine in which autologous dendritic cells are transfected with patient-specific renal cell carcinoma (RCC) RNA and a synthetic, truncated human CD40 ligand (CD40L) RNA with potential immunostimulatory and antineoplastic activities. Individual RCC-specific RNA, encoding a unique repertoire of tumor-associated antigens (TAAs) (including telomerase reverse transcriptase, G250, and oncofetal antigen) is electroporated into autologous dendritic cells (DCs), transfected with synthetic RNA that encodes a truncated version of the T-cell protein CD40L; the transfected autologous DCs express and process both patient-specific RCC TAAs and the truncated CD40L protein. When reintroduced back to the patient, rocapuldencel-T may elicit a highly specific cytotoxic T-cell (CTL) response against RCC cells expressing the patient-specific RCC TAA repertoire. The signal cascade initiated by stimulation of the truncated, ectopically expressed co-stimulatory molecule CD40L results in the secretion of the inflammatory cytokine IL-12 downstream.