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# Neoantigen-based Renal Cell Carcinoma-Poly-ICLC Vaccine

National Cancer Institute

## Source

National Cancer Institute. *Neoantigen-based Renal Cell Carcinoma-Poly-ICLC Vaccine*.  
NCI Thesaurus. Code C158694.

A peptide-based renal cell carcinoma (RCC) vaccine consisting of neoantigens and peptides derived from immunogenic epitopes identified through DNA and RNA sequencing of a patient's tumor cells, combined with the immunostimulant poly-ICLC with potential immunomodulating and antineoplastic activities. Vaccination with the neoantigen-based RCC vaccine stimulates the host immune system to mount a cytotoxic T-lymphocyte (CTL) response against tumor cells expressing the neoantigens, leading to tumor cell lysis. The adjuvant poly-ICLC, composed of double-stranded RNA molecules of polyinosinic-polycytidylic acid stabilized with poly L-lysine in carboxymethylcellulose, is a ligand for toll-like receptor-3 (TLR3) and induces the release of cytokines which may help to boost the immune response against the selected neoantigens.