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Neoantigen-based Melanoma-Poly-ICLC Vaccine

National Cancer Institute

Source

National Cancer Institute. *Neoantigen-based Melanoma-Poly-ICLC Vaccine*. NCI Thesaurus. Code C112003.

A peptide-based melanoma cancer vaccine consisting of neoantigens and peptides derived from patient-specific melanoma immunogenic epitopes, combined with the immunostimulant poly-ICLC with potential immunomodulating and antineoplastic activities. Vaccination with the neoantigen-based melanoma vaccine stimulates the host immune system to mount a cytotoxic T lymphocyte (CTL) response against tumor cells expressing the neoantigens, which results in 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.