Rilimogene Galvacirepvec/Rilimogene Glafolivec

National Cancer Institute

Source

A vaccine formulation consisting of rilimogene galvacirepvec (V-PSA-TRICOM; PROSTVAC-V), a recombinant vaccinia virus, and rilimogene glafolivec (F-PSA-TRICOM; PROSTVAC-F), a recombinant fowlpox virus, with potential immunostimulating and antineoplastic activities. Both viruses encode modified forms of human prostate specific antigen (PSA) and the three co-stimulatory molecule transgenes (TRIad of COstimulatory Molecules; TRICOM), B7.1 (CD80), intercellular adhesion molecule-1 (ICAM-1), and lymphocyte function-associated antigen-3 (LFA-3). Using a prime-boost vaccine regimen, with a primary vaccination of rilimogene galvacirepvec followed by multiple booster vaccinations of rilimogene glafolivec, the PSA-TRICOM vaccines infect antigen-presenting cells (APCs), such as dendritic cells (DCs). Upon processing and expression of the PSA and TRICOM proteins on their surfaces, the DCs are able to initiate cytotoxic T-lymphocyte (CTL) responses against PSA-expressing cancer cells. The combination of PSA and TRICOM greatly enhances T-cell activation and T-cell-mediated tumor cell killing.