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Apoptotic Autologous Tumor Cells-pulsed Alpha-type-1 Polarized Dendritic Cells

National Cancer Institute

Source

National Cancer Institute. *Apoptotic Autologous Tumor Cells-pulsed Alpha-type-1 Polarized Dendritic Cells*. NCI Thesaurus. Code C102978.

A cell based cancer vaccine composed of mature polarized dendritic cells (DCs) and pulsed with apoptotic autologous tumor cells that has potential immunostimulating and antineoplastic activities. Dendritic cells (DCs) were treated with interleukin-1beta, tumor necrosis factor alpha, interferon-alpha (IFN-a), IFN-gamma and polyinosinic:polycytidylic acid (p-I:C) to produce mature alpha type-1 polarized DCs (alphaDC1) that are capable of producing high levels of interleukin-12p70 (IL-12p70). The alphaDC1 are subsequently pulsed with apoptotic autologous tumor cells. Upon administration, these DCs are able to induce a potent cytotoxic T lymphocyte (CTL) response against tumor associated antigens (TAAs), resulting in tumor cell lysis and inhibition of tumor cell growth. Apoptotic tumor cells contain an array of TAAs.