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Alpha-tocopheryloxyacetic Acid

National Cancer Institute

Source

National Cancer Institute. *Alpha-tocopheryloxyacetic Acid*. NCI Thesaurus. Code C117234.

An orally bioavailable vitamin E derivative with potential antineoplastic and immunostimulating activities. Upon administration, alpha-tocopheryloxyacetic acid (alpha-TEA) induces tumor autophagy; the autophagosomes formed, which carry tumor associated antigens (TAAs), allow for increased cross-presentation of TAAs by professional antigen-presenting cells (APCs). This activates a T cell-mediated T helper type 1 (TH1) response, generates a cytotoxic T-lymphocyte (CTL) response against cancer cells, and reduces the frequency of regulatory T-cell (Treg) differentiation. In addition, alpha-TEA modulates the release of various cytokines and chemokines and induces tumor cell apoptosis. Altogether, this results in decreased tumor cell proliferation.