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Modified Vitamin D Binding Protein Macrophage Activator EF-022

National Cancer Institute

Source

National Cancer Institute. *Modified Vitamin D Binding Protein Macrophage Activator EF-022*. NCI Thesaurus. Code C131824.

A modified version of vitamin D binding protein (VDBP; Gc protein) macrophage activator, with potential antineoplastic and anti-angiogenic activities. Upon administration, modified VDBP-macrophage activator EF-022, acting in a similar manner as VDBP-macrophage activating factor (GcMAF), is able to activate tumoricidal macrophages, thereby enhancing the killing and eradication of cancer cells. In addition, EF-022 may inhibit tumor cell proliferation, migration and angiogenesis. VDBP is a glycoprotein and precursor for macrophage activating factor (MAF), which promotes macrophage activation; however VDBP can be deglycosylated by serum alpha-N-acetylgalactosaminidase, which is secreted from cancerous cells, and cannot be converted to MAF. Thus, the macrophage activation cascade is often impaired in tumor cells and plays a key role in tumor immunosuppression. Modification of VDBP stabilizes MAF.