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Apilimod Dimesylate Capsule

National Cancer Institute

Source

National Cancer Institute. *Apilimod Dimesylate Capsule*. NCI Thesaurus. Code C126661.

A capsule containing the dimesylate salt form of apilimod, an inhibitor of the class III PI kinase phosphatidylinositol-3-phosphate 5-kinase (PIKfyve), with potential antineoplastic and immunomodulatory activities. Upon oral administration of apilimod dimesylate capsule, apilimod selectively binds to and inhibits PIKfyve. The inhibition leads to disruption of PIKfyve-mediated signal transduction pathways and eventually inhibits tumor cell growth in PIKfyve-overexpressing tumor cells. Also, PIKfyve inhibition by apilimod inhibits the toll-like receptor (TLR)-induced production of various cytokines, including interleukin-12 (IL-12) and IL-23, thereby preventing IL-12/IL-23-mediated immune responses. PIKfyve, a lipid kinase dysregulated in various tumor types, plays a key role in TLR signaling and tumor cell migration, proliferation and survival.