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PI3K-beta Inhibitor SAR260301

National Cancer Institute

Source

National Cancer Institute. *PI3K-beta Inhibitor SAR260301*. NCI Thesaurus. Code C116882.

An orally bioavailable inhibitor of the class I phosphatidylinositol 3-kinase (PI3K) beta isoform with potential antineoplastic activity. PI3K beta inhibitor SAR260301 selectively inhibits PI3K beta kinase activity in the PI3K/Akt/mTOR pathway, which may result in apoptosis and growth inhibition in PI3K beta-expressing and/or phosphatase and tensin homolog (PTEN)-deficient tumor cells. Dysregulation of the PI3K/Akt/mTOR pathway is frequently found in solid tumors and contributes to increased tumor cell growth, tumor cell survival, and resistance to both chemotherapy and radiotherapy. PI3K beta is the p110-beta catalytic subunit of the class I PI3K. PTEN, a tumor suppressor protein and negative regulator of PI3K activity, is often mutated in a variety of cancer cells. By specifically targeting class I PI3K beta, this agent may be more efficacious and less toxic than pan-PI3K inhibitors.