Seviteronel

National Cancer Institute

Source

National Cancer Institute. Seviteronel. NCI Thesaurus. Code C113652.

An orally available non-steroidal, lyase-selective inhibitor of the steroid 17-alpha-hydroxylase/C17,20 lyase (CYP17A1 or CYP17), with potential anti-androgenic and antineoplastic activities. Upon oral administration, seviteronel selectively inhibits the enzymatic activity of the cytochrome P450 C17,20 lyase in both the testes and adrenal glands, thereby inhibiting androgen production. This may decrease androgen-dependent growth signaling and may inhibit cell proliferation of androgen-dependent tumor cells. The cytochrome P450 enzyme CYP17A1, localized to the endoplasmic reticulum, exhibits both 17alpha-hydroxylase and 17,20-lyase activities; it plays a key role in the steroidogenic pathway. The lyase-selective activity of seviteronel prevents the increased synthesis of mineralocorticoids that is normally seen with non-selective CYP17 inhibitors, which also inhibit the 17-alpha-hydroxylase activity of CYP17A1.