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Orteronel

National Cancer Institute

Source

National Cancer Institute. *Orteronel*. NCI Thesaurus. Code C90582.

An orally bioavailable non-steroidal androgen synthesis inhibitor of steroid 17alpha-monooxygenase (17,20 lyase) with potential antiandrogen activity. TAK-700 binds to and inhibits the steroid 17alpha-monooxygenase 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 (P450C17), localized to the endoplasmic reticulum (ER), exhibits both 17alpha-hydroxylase and 17,20-lyase activities, and plays a key role in the steroidogenic pathway that produces steroidal hormones, such as progestins, mineralocorticoids, glucocorticoids, androgens, and estrogens.