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# Tamoxifen

National Cancer Institute

## Source

National Cancer Institute. *Tamoxifen*. NCI Thesaurus. Code C62078.

An antineoplastic nonsteroidal selective estrogen receptor modulator (SERM). Tamoxifen competitively inhibits the binding of estradiol to estrogen receptors, thereby preventing the receptor from binding to the estrogen-response element on DNA. The result is a reduction in DNA synthesis and cellular response to estrogen. In addition, tamoxifen up-regulates the production of transforming growth factor B (TGF $\beta$ ), a factor that inhibits tumor cell growth, and down-regulates insulin-like growth factor 1 (IGF-1), a factor that stimulates breast cancer cell growth.