

[Open Peer Review on Qeios](#)

Tegafur

National Cancer Institute

Source

National Cancer Institute. *Tegafur*. NCI Thesaurus. Code C513.

A congener of the antimetabolite fluorouracil with antineoplastic activity. Tegafur is a prodrug that is gradually converted to fluorouracil in the liver by the cytochrome P-450 enzyme. Subsequently, 5-FU is metabolized to two active metabolites, 5-fluoro-2-deoxyuridine monophosphate (FdUMP) and 5-fluorouridine triphosphate (FUTP) by both tumor cells and normal cells. FdUMP inhibits DNA synthesis and cell division by inhibiting thymidylate synthase and reducing normal thymidine production, while FUTP inhibits RNA and protein synthesis by competing with uridine triphosphate. (NCI04)