# Emitefur

National Cancer Institute

## Source

*National Cancer Institute. Emitefur. NCI Thesaurus. Code C1022.*

An orally available antimetabolite composed of the 1-ethoxymethyl derivative of 5-fluorouracil (5-FU) and the dihydropyrimidine dehydrogenase (DPYD) inhibitor 3-cyano-2,6-dihydroxypyridine (CNDP) in a 1:1 molar ratio, with antineoplastic activity. Upon administration, the prodrug emitefur is converted into 5-FU, while CNDP prevents the degradation of 5-FU by inhibiting DPYD and thereby prolonging the half-life of 5-FU. This increases 5-FU's concentration and thus its antitumor activity through inhibition of DNA and RNA synthesis, as well as inhibition of thymidylate synthase activity. In addition, by inhibiting the formation of 5-FU metabolites, some toxic effects associated with these metabolites may be reduced. DPYD is the rate-limiting enzyme in the catabolism of 5-FU.