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Propylthiouracil

National Cancer Institute

Source

National Cancer Institute. *Propylthiouracil*. NCI Thesaurus. Code C781.

A thiourea derivative with antithyroid property. Propylthiouracil (PTU) interferes with the oxidation of iodine possibly by interaction with peroxidase or a peroxidase-mediated complex reaction, thereby inhibiting synthesis of thyroid hormones tri-iodothyronine (T3) and thyroxine (T4). In addition, this agent inhibits the Type I 5'-deiodinase (D1), an enzyme involved in the peripheral conversion of thyroxine to tri-iodothyronine. This results in decreased plasma triiodothyronine concentrations and decreased entrance of thyroxine into cells thereby reducing thyroid hormone activity.