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Proguanil Hydrochloride

National Cancer Institute

Source

National Cancer Institute. *Proguanil Hydrochloride*. NCI Thesaurus. Code C47690.

The hydrochloride salt form of proguanil, a synthetic biguanide derivative of pyrimidine and a folate antagonist with antimalarial property. Upon hydrolysis, proguanil is converted to its active cyclic triazine metabolite, cycloguanil, by a cytochrome P450 dependent reaction. Cycloguanil selectively inhibits the bifunctional dihydrofolate reductase-thymidylate synthase (DHFR-TS) of plasmodium parasite, thereby disrupting deoxythymidylate synthesis and ultimately blocking DNA and protein synthesis in the parasite.