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Geranylgeranyltransferase I Inhibitor

National Cancer Institute

Source

National Cancer Institute. *Geranylgeranyltransferase I Inhibitor*. NCI Thesaurus. Code C104414.

A substance that inhibits protein geranylgeranyltransferase type 1 (GGTase-I), with potential antineoplastic activity. GGTase-I is involved in the posttranslational modification of a number of oncogenic GTPases, including K-Ras, N-Ras, RhoA, RhoC, Cdc42, RalA, RalB and Rac1. Inhibition of the prenylation of these oncogenic proteins inhibits both their oncogenic activity and membrane localization. This may result in cell cycle arrest and apoptosis. Protein geranylgeranylation, catalyzed by GGTase-I, plays a critical role in malignant transformation and cancer cell proliferation, migration and invasion.