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Simotaxel

National Cancer Institute

Source

National Cancer Institute. *Simotaxel*. NCI Thesaurus. Code C116871.

A semi-synthetic, orally bioavailable, third-generation taxane derivative and microtubule-stabilizing agent, with potential antineoplastic activity. Upon administration, simotaxel binds to tubulin, promotes microtubule assembly and stabilization, and prevents microtubule depolymerization. This results in G2/M arrest, apoptosis and the inhibition of cell proliferation in susceptible tumor cells. This agent is a poor substrate for P-glycoprotein-related drug resistance mechanisms; therefore, it may be useful for treating multi-drug resistant tumors. MST-997 is more potent than paclitaxel and docetaxel and overcomes paclitaxel and docetaxel resistance in certain tumor cell types.