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Nimodipine

National Cancer Institute

Source

National Cancer Institute. *Nimodipine*. NCI Thesaurus. Code C692.

A dihydropyridine derivative and an analogue of the calcium channel blocker nifedipine, with antihypertensive activity. Nimodipine inhibits the transmembrane influx of calcium ions in response to depolarization in smooth muscle cells, thereby inhibiting vascular smooth muscle contraction and inducing vasodilatation. Nimodipine has a greater effect on cerebral arteries than on peripheral smooth muscle cells and myocardial cells, probably because this agent can cross the blood brain barrier due to its lipophilic nature. Furthermore, this agent also inhibits the drug efflux pump P-glycoprotein, which is overexpressed in some multi-drug resistant tumors, and may improve the efficacy of some antineoplastic agents.