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# Rosuvastatin

National Cancer Institute

## Source

National Cancer Institute. *Rosuvastatin*. NCI Thesaurus. Code C66523.

A statin with antilipidemic and potential antineoplastic activities. Rosuvastatin selectively and competitively binds to and inhibits hepatic hydroxymethyl-glutaryl coenzyme A (HMG-CoA) reductase, the enzyme which catalyzes the conversion of HMG-CoA to mevalonate, a precursor of cholesterol. This leads to a decrease in hepatic cholesterol levels and increase in uptake of LDL cholesterol. In addition, rosuvastatin, like other statins, exhibits pro-apoptotic, growth inhibitory, and pro-differentiation activities in a variety of tumor cell types; these antineoplastic activities may be due, in part, to inhibition of the isoprenylation of Ras and Rho GTPases and related signaling cascades.