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# Avapritinib

National Cancer Institute

## Source

National Cancer Institute. *Avapritinib*. NCI Thesaurus. Code C123827.

An orally bioavailable inhibitor of specific mutated forms of platelet-derived growth factor receptor alpha (PDGFR alpha; PDGFRa) and mast/stem cell factor receptor c-Kit (SCFR), with potential antineoplastic activity. Upon oral administration, avapritinib specifically binds to and inhibits specific mutant forms of PDGFRa and c-Kit, including the PDGFRa D842V mutant and various KIT exon 17 mutants. This results in the inhibition of PDGFRa- and c-Kit-mediated signal transduction pathways and the inhibition of proliferation in tumor cells that express these PDGFRa and c-Kit mutants. PDGFRa and c-Kit, protein tyrosine kinases and tumor-associated antigens (TAAs), are mutated in various tumor cell types; they play key roles in the regulation of cellular proliferation.