

[Open Peer Review on Qeios](#)

Dovitinib

National Cancer Institute

Source

National Cancer Institute. *Dovitinib*. NCI Thesaurus. Code C76199.

A benzimidazole-quinolinone compound and receptor tyrosine kinase (RTK) inhibitor with potential antineoplastic activity. Dovitinib binds to and inhibits the phosphorylation of type III-V RTKs, such as vascular endothelial growth factor receptor (VEGFR) and platelet-derived growth factor receptor (PDGFR) that promote tumor cell proliferation and survival in certain cancer cells. In addition, this agent also inhibits other members of the RTK superfamily, including fibroblast growth factor receptor 1 and 3, FMS-like tyrosine kinase 3, stem cell factor receptor (c-KIT), and colony stimulating factor receptor 1. This may further lead to a reduction of cellular proliferation and angiogenesis, and an induction of tumor cell apoptosis.