

[Open Peer Review on Qeios](#)

Carbon C-14 Dacomitinib

National Cancer Institute

Source

National Cancer Institute. *Carbon C-14 Dacomitinib*. NCI Thesaurus. Code C88339.

A radioconjugate consisting of an orally bioavailable small-molecule inhibitor of the epidermal growth factor receptor (erbB or HER) family of tyrosine kinases radiolabeled with carbon-14 with potential antineoplastic and beta-emitting radioisotope activity. PF-00299804 specifically and irreversibly binds to and inhibits human Her-1, Her-2, and Her-4, resulting in the proliferation inhibition and apoptosis of tumor cells that overexpress these receptors. The HER receptor family of tyrosine kinases, often overexpressed by a variety of tumor cell types, may contribute to tumor cell proliferation, differentiation, migration, and survival. PF-00299804 radiolabeled with carbon C-14 may be used as a radiotracer in pharmacological studies of PF-00299804 metabolism.