## Open Peer Review on Qeios

## Dactolisib Tosylate

National Cancer Institute

## Source

National Cancer Institute. <u>Dactolisib Tosylate</u>. NCI Thesaurus. Code C162346.

The tosylate salt form of dactolisib, an orally bioavailable imidazoquinoline targeting the phosphatidylinositol 3 kinase (PI3K) and the mammalian target of rapamycin (mTOR), with potential antineoplastic activity. Upon administration, dactolisib inhibits PI3K kinase and mTOR kinase in the PI3K/AKT/mTOR kinase signaling pathway, which may result in tumor cell apoptosis and growth inhibition in PI3K/mTOR-overexpressing tumor cells. Activation of the PI3K/mTOR pathway promotes cell growth, survival, and resistance to chemotherapy and radiotherapy. mTOR, a serine/threonine kinase downstream of PI3K, may also be activated independent of PI3K.