

[Open Peer Review on Qeios](#)

Edelfosine

National Cancer Institute

Source

National Cancer Institute. *Edelfosine*. NCI Thesaurus. Code C956.

A synthetic analog of lysophosphatidylcholine, an ether lipid, possessing anti-leishmanial and antineoplastic activity. The mechanism of action for edelfosine has not been fully elucidated. Targeting cellular membranes, edelfosine modulates membrane permeability, membrane lipid composition, and phospholipid metabolism. Edelfosine also inhibits the phosphatidylinositol 3 kinase (PI3K)-AKT/PKB survival pathway, possibly activating the pro-apoptotic stress-activated protein kinase (SAPK/JNK) pathways, thereby inducing apoptosis. In addition, this agent inhibits protein kinase C, intracellular activation of the Fas/CD95 receptor, and intracellular acidification. Anti-leishmanial activity may be due to inhibition of a glycosomal alkyl-specific-acylCoA acyltransferase. (NCI)