



Perifosine

货号: P1682

储存条件: 粉末-20°C可保存3年; 液体-80°C可保存12月。

产品描述

AKT is the central node of PI3K/AKT/mTOR pathway. It has three functional domains -- a PH domain, a-helical linker domain and central kinase domain. The PH domain can interact with phospholipids produced by the actions of PI3K which serve to home AKT to the cell membrane and transfer to an active conformation. Perifosine (KRX-0401) is an alkylphospholipid-kind inhibitor of AKT. It can inhibit the binding of the AKT-PH domain to artificial membranes containing 3% PI(3,4)P2 with IC50 value of ~10 μ M (measured by SPR). Treatment of perifosine on concentration of 5 μ M can decrease level of p-AKT-S473 and p-AKT-T308 in PC-3 cells. Stimulated Akt phosphorylation by serum, insulin, IGF-I, EGF, and PDGF was strongly inhibited by 5 μ M perifosine for 30 min. Treatment of perifosine (5 μ M) can inhibit the membrane localization of the PH domain of Akt. In vivo study shows that either oral daily (36 mg/kg/d) or weekly (250 mg/kg/week) administration of perifosine can significantly reduce MM tumor growth and increase survival compared with control group in mice. Clinical trials of perifosine treatment for cancer, including a phase 3 study for colorectal cancer, have been done.

作用机制

Perifosine inhibits AKT by preventing its translocation from the cytosol to the inner leaflet of the plasma membrane.

产品信息

CAS号	157716-52-4	
分子式	C25H52NO4P	
分子量	461.66	
溶解度	DMSO	insoluble
	Water	6.0 mg/mL (13.0 mM)
	Ethanol	14.0 mg/mL (30.3 mM)





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