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Choline Kinase Alpha Inhibitor TCD-717

National Cancer Institute

Source

National Cancer Institute. *Choline Kinase Alpha Inhibitor TCD-717*. NCI Thesaurus. Code C94213.

A small-molecule inhibitor of choline kinase alpha (CHKA), with potential antineoplastic activity. TCD-717 targets and binds to CHKA, an enzyme that plays a key role in the synthesis of phosphatidylcholine, the major phospholipid in eukaryotic cell membranes. Blockade of this enzyme induces cells to activate a different route for phospholipid production which causes a toxic effect and eventually leads to cell destruction. CHKA, overexpressed in human cancer cells while only minimally expressed in normal cells, appears to play a significant role in cellular proliferation, evasion of apoptosis, increased cell motility and metastasis.