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ALK-FAK Inhibitor CEP-37440

National Cancer Institute

Source

National Cancer Institute. *ALK-FAK Inhibitor CEP-37440*. NCI Thesaurus. Code C111685.

An orally available dual kinase inhibitor of the receptor tyrosine kinase anaplastic lymphoma kinase (ALK) and focal adhesion kinase (FAK), with potential antineoplastic activity. Upon administration, ALK-FAK inhibitor CEP-37440 selectively binds to and inhibits ALK kinase and FAK kinase. The inhibition leads to disruption of ALK- and FAK-mediated signal transduction pathways and eventually inhibits tumor cell growth in ALK- and FAK-overexpressing tumor cells. ALK belongs to the insulin receptor superfamily and plays an important role in nervous system development; its dysregulation and gene rearrangements are associated with a variety of tumors. The cytoplasmic tyrosine kinase FAK, a signal transducer for integrins, is upregulated and constitutively activated in various tumor types; it plays a key role in tumor cell migration, proliferation, survival, and tumor angiogenesis.