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MKNK1 Inhibitor BAY 1143269

National Cancer Institute

Source

National Cancer Institute. *MKNK1 Inhibitor BAY 1143269*. NCI Thesaurus. Code C121956.

An orally bioavailable inhibitor of mitogen-activated protein kinase interacting serine/threonine-protein kinase 1 (MKNK1), with potential antineoplastic activity. Upon oral administration, MKNK1 inhibitor BAY 1143269 binds to MKNK1, thereby preventing its activation and the downstream MKNK1-mediated phosphorylation and activation of eukaryotic translation initiation factor 4E (eIF4E). As eIF4E enhances the synthesis of oncogenic proteins, preventing eIF4E activity inhibits the synthesis of tumor angiogenic factors and leads to both the inhibition of cellular proliferation and apoptosis in susceptible tumor cells. eIF4E, overexpressed in a variety of cancer cells, plays a key role in tumor cell proliferation and survival.