

IIIM-290

[IIIM-(N)-290/13 (Target: CDK)]

IIIM-290 is a synthetic chromone alkaloid possessing potent Cdk inhibitory activity. It is a potent inhibitor of Cdk-1/A, Cdk-2/A, Cdk4/D3 Cdk5/p25, Cdk-6/D1 and Cdk-9/T1 showing IC₅₀ values < 100 nM. It possess cytotoxicity in different types of cancer tissues, with most potent cytotoxicity in leukemia and pancreatic cancer cells (IC₅₀ < 1 μM). It possesses excellent physicochemical properties (solubility, Log P, pKa, permeability). It possesses excellent oral pharmacokinetics in BALB/c mice and SD rats with >60% oral bioavailability, better than a clinical candidate flavopiridol. It displayed promising in-vivo efficacy in Molt-4 and MiaPaca-2 xenograft models. It does not have liabilities for CYP inhibition, efflux pump substrate, hERG channel binding. IND-enabling studies have been completed for this lead and IND shall be filed by the end of 2018.