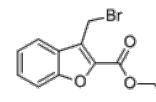


Product Name : MCC1019
Cat. No. : PC-20477
CAS No. : 29115-34-2
Molecular Formula : C₁₂H₁₁BrO₃
Molecular Weight : 283.12
Target : Polo-like Kinase (PLK)
Solubility : 10 mM in DMSO



Biological Activity

MCC1019 is a selective inhibitor of **PLK1**, targets PLK1 Polo box domain (PBD) with binding IC₅₀ of 16.4 uM, 2.75-fold over PLK2-PBD (IC₅₀=44.1 uM) and > 6-fold higher specificity over PLK3 PBD (IC₅₀ >100 uM).

MCC1019 exerted profound cytotoxicity across a panel of cancer cell lines, hematologic malignancies (CCRF-CEM, K562 and CEM/ADR5000) were more sensitive to MCC1019 (IC₅₀s <2 uM).

MCC1019 inhibit downstream effector proteins of PLK1 (BUBR1, p-AKT, p-FOXO1 and HIF-1α), induced M phase cell cycle arrest, and apoptosis and necroptosis.

MCC1019 (20 and 40 mg/kg) significantly inhibited tumor growth in LLC-1 lung tumor bearing mice and RM-1 prostate tumor bearing mice models.

References

Abdelfatah S, et al. *Acta Pharm Sin B*. 2019 Sep;9(5):1021-1034.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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