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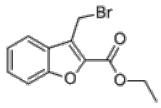
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	MCC1019
Cat. No.	:	PC-20477
CAS No.	:	29115-34-2
Molecular Formula	:	$C_{12}H_{11}BrO_3$
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.

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