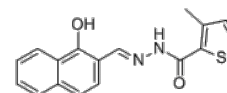


Product Name : PCNA-I1
Cat. No. : PC-38448
CAS No. : 444930-42-1
Molecular Formula : C₁₇H₁₄N₂O₂S
Molecular Weight : 310.37
Target : DNA Repair Protein
Solubility : 10 mM in DMSO



Biological Activity

PCNA-I1 is a small molecule inhibitor of proliferating cell nuclear antigen (PCNA), selectively binds to PCNA trimers with K_d of 0.14-0.41 μM, inhibits the growth of tumor cells of various tissue types with IC₅₀ of 0.2 μM.

PCNA-I1 dose- and time-dependently reduced the chromatin-associated PCNA in cells, affected the growth of nontransformed cells at significantly higher concentrations (IC₅₀=1.6 μM).

PCNA-I1 also dose-dependently reduced uptake of BrdU in PCNA-I1 treated cells, induced cancer cell arrest at both the S and G(2)/M phases.

PCNA-I1 induced DNA damage and apoptosis in both LNCaP (wild-type p53) and PC-3 cells (p53-null) and enhanced DNA damage and apoptosis triggered by cisplatin, also induced autophagy in PC-3 cells.

PCNA-I1 (i.v.) significantly retarded growth of LNCaP tumors of in nude mice without causing detectable effects on mouse body weight and hematology profiles.

References

Tan Z, et al. Mol Pharmacol. 2012 Jun;81(6):811-9.

Dillehay KL, et al. Mol Cancer Ther. 2014 Dec;13(12):2817-26.

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

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