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# Data Sheet

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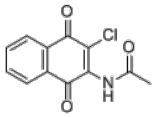
| **Product Name** | : | UF146 |
| **Cat. No.** | : | PC-49681 |
| **CAS No.** | : | 5397-78-4 |
| **Molecular Formula** | : | $C_{12}H_8ClNO_3$ |
| **Molecular Weight** | : | 249.65 |
| **Target** | : | DNA Methyltransferase (DNMT) |
| **Solubility** | : | 10 mM in DMSO |




## Biological Activity

UF146 (UF-146, NP-313) is a specific small molecule inhibitor of ubiquitin-like protein **UHRF1**, binds with the SRA domain groove of UHRF1 with KD of 3.71 uM, significantly inhibits the binding of UHRF1 and hemi-methylated DNA with IC50 of 499.4 nM in FRET assays.
UHRF1, an epigenetic regulator that recruits DNMT1 to methylate DNA, is highly expressed in AML and predicts poor prognosis. UHRF1 is required for myeloid leukemogenesis by maintaining self-renewal of leukemia initiation cells (LICs).
UF146 suppresses AML cell survival by inhibiting proliferation and promoting apoptosis in vitro, with minimal effect on proliferation of normal HSPCs and their DNA methylation state.
UF146 (2.5 mg/kg, i.p., every other day for three weeks) demonstrates therapeutic efficacy on AML in AE9a- or MLL-AF9-driven AML mice, UF146 significantly delayed the leukemia development in the Uhrf1fl/fl group but not in the Uhrf1Δ/Δ group.
UF146 significantly inhibited the self-renewal of LICs with minimal effect on human CD34+ HSPCs and normal hematopoiesis in wild type mice.
NP-313 also is an antithrombotic agent with dual inhibition of thromboxane A(2) synthesis and calcium entry.
NP-313 at 10 μM inhibited cyclooxygenase, thromboxane A(2) synthase, and protein kinase Cα, whereas it did not affect phospholipase A(2) or phospholipase C activity.
NP-313 concentration-dependently inhibited human platelet aggregation induced by collagen, arachidonic acid, thapsigargin, thrombin and A23187.

## References

Hu CL, et al. ***Cell Res.*** 2022 Dec;32(12):1105-1123.

Kuo HL, et al. ***Br J Pharmacol.*** 2011 Apr;162(8):1871-83.



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